

ENGLISH FOR WORK / DISCOVERY / PRIORITIES / EVIDENCE / RELEASES

Software Product Management **English**

Clarify the problem. Make the trade-off explicit.



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Eight practical lessons. Eleven extended conversations.

Vocabulary, phrase banks, guided speaking, and explained answers.

Revised 2026 edition / Upper-intermediate to advanced

Your route through the book

01 Product Discovery and Problem Framing, page 4

Reframe a requested interface addition using supplied support evidence and agree a focused discovery task.

02 Roadmaps and Prioritization, page 14

Apply agreed priorities to a capacity conflict, explain the displaced work, and distinguish a review date from a delivery promise.

03 User Stories and Acceptance Criteria, page 27

Turn a vague performance request into a checkable criterion and distinguish that criterion from the wider completion standard.

04 Metrics, Funnels, and Product Analytics, page 37

Explain opposing funnel movements using aligned cohorts, counts, rates, and an explicit limit on causal interpretation.

05 Experimentation and A/B Testing, page 50

Discuss interim experiment results without changing the decision rule after seeing favorable data, while preserving guardrail monitoring.

06 Release Readiness and Go-to-Market, page 61

Coordinate a release review by naming the missing operational prerequisite, its owner, and the distinction between review and launch approval.

07 Platform, APIs, and Technical Debt, page 76

Explain a short-term delivery option and its maintenance consequences without hiding compatibility, ownership, or retirement requirements.

08 Stakeholder Pushback and Executive Narrative, page 88

Present a concise recommendation tied to a shared objective while acknowledging evidence limits, displaced work, and decision authority.

[Professional communication notes, page 3](#)

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Suggested study range: B2-C1. This is an editorial study range, not a certified proficiency assessment.

A product conversation should move a decision.

A feature request is not yet a user problem, a roadmap is not unlimited capacity, and a favorable metric is not the whole outcome. Product managers need language that connects user evidence, business commitments, technical constraints, and a clear next decision. These cases practice that work through concrete requests, numerical examples, disagreements, and handoffs.

Ask what the user was trying to do

A requested button names one possible solution. Identify the task, the obstacle, and the evidence before deciding what to build. Similar support tickets may describe different problems.

"Eight tickets concern finding the action; four concern permission to use it."

Say what gives way

Prioritization has a consequence when capacity is limited. Explain which criterion is being applied and which work is deferred. Calling every request urgent does not create another delivery slot.

"We can fit the committed audit work and setup recovery; the refresh moves out."

Attach a definition to the metric

A conversion rate needs a denominator and time window. A load-time requirement needs a start, an endpoint, and test conditions. Keep those definitions near the numbers.

"Setup completion is measured within seven days of signup for each mature cohort."

Finish with the decision and next check

A useful discussion ends with an owner, a boundary, and evidence that would change the position. Separate a recommendation from approval and a progress update from a delivery promise.

"The launch decision remains open until Support confirms the required migration notes."

Professional boundaries

Original fictional English practice, not a product-management certification, statistical analysis service, software security assessment, or release authorization. All teams, data, dates, and decisions are invented. Actual work must follow the organization's responsibilities, research safeguards, engineering controls, experiment methods, and applicable requirements.

A Read the situation

LESSON 01 / PRODUCT DISCOVERY AND PROBLEM FRAMING

Reframe a requested interface addition using supplied support evidence and agree a focused discovery task.

One button request, two different problems

Support lead Morgan asks product manager Li for a new Export button on the home page. Their review finds 12 relevant tickets from the past month: eight users could not find the existing action, while four found it but lacked the required permission. The records do not show how common either problem is among all users. No design change is approved. Morgan and Li agree to separate the two issues and prepare a two-day investigation of navigation and permission messaging before choosing a solution.

People: Morgan, Support lead; Li, Product manager.

Read the record

Choose one answer per question using the facts above.

1. What do eight tickets describe?

- A.** A completed test of the new button
- B.** Difficulty finding the existing Export action
- C.** A confirmed outage of every export
- D.** Users finding the action but lacking permission

2. What do the other four describe?

- A.** The action was found, but the required permission was missing.
- B.** The action did not exist anywhere.
- C.** Every user completed the export successfully.
- D.** A home-page redesign was approved.

3. What have Morgan and Li agreed to do?

- A.** Claim that every user has the same problem.
- B.** Prepare a two-day investigation of navigation and permission messaging.
- C.** Build the new home-page button immediately.
- D.** Remove all export permissions.

[Answers and explanations, page 114](#)

B Vocabulary in use

CORE TERMS

product discovery

Work to understand problems and test potential product directions.

conduct product discovery

solution request

A request for a particular implementation or feature.

unpack the solution request

job to be done

The progress or task a user seeks in a given situation.

clarify the job to be done

support evidence

Information from support interactions used to investigate problems.

review support evidence

permission

Authorization to perform a defined action.

explain the permission requirement

navigation path

The sequence of locations used to reach a function.

trace the navigation path

problem statement

A concise description of a user problem and its context.

frame the problem statement

user need

An outcome a user needs to accomplish.

identify the user need

user segment

A group of users sharing relevant characteristics or needs.

define the user segment

discoverability

How readily users can find an available function.

improve discoverability

access barrier

A condition preventing a user from reaching or using a capability.

identify the access barrier

friction point

A step that makes a user task harder or less reliable.

locate a friction point

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

product discovery **PRODUCT DISCOVERY**

conduct product discovery

Keep the meaning precise: Work to understand problems and test potential product directions.

user segment **USER SEGMENT**

define the user segment

Keep the meaning precise: A group of users sharing relevant characteristics or needs.

B Precision and professional shorthand

EXTEND YOUR RANGE

usability test

Observation of representative users attempting defined tasks.

run a usability test

research question

A specific uncertainty the investigation aims to resolve.

define the research question

hypothesis

A proposed explanation or prediction to evaluate.

state the hypothesis

desirability

Whether a solution addresses something users value.

assess desirability

viability

Whether a solution can support the relevant business needs.

assess viability

discovery scope

The defined boundaries of the investigation.

bound the discovery scope

task success

Completion of a defined user task under stated conditions.

measure task success

assumption

An unverified premise guiding a proposal or decision.

test the assumption

prototype

A representation used to explore or test a design.

compare prototypes

feasibility

Whether a solution can be built and operated under constraints.

assess feasibility

opportunity

A problem or possibility that could create product value.

evaluate the opportunity

evidence gap

Missing information needed to support a conclusion.

identify the evidence gap

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

friction point FRICTION POINT

locate a friction point

Keep the meaning precise: A step that makes a user task harder or less reliable.

hypothesis HYPOTHESIS

state the hypothesis

Keep the meaning precise: A proposed explanation or prediction to evaluate.

Phrases that move the work forward

Acknowledge the problem

We should address the export friction in these tickets.

Identify the task

What were users trying to export, and from where?

Name the first issue

The existing action may have a discoverability problem.

Avoid a false fix

Adding a button would not grant authorization.

Ask a focused question

Can users find the action during the relevant task?

Bound the investigation

Let us spend two days examining these two paths.

Compare possibilities

A clearer label and a new location are different options.

Agree the handoff

Bring the observed paths and findings to the next review.

Separate request from need

The button is one proposed solution, not the problem itself.

Split the evidence

Eight tickets concern finding the action; four concern permission.

Name the second issue

The permission message may need a separate review.

Limit the inference

These tickets do not establish prevalence across all users.

Keep safeguards

We are not proposing to bypass access controls.

Request useful detail

Link each ticket to the task and navigation path.

Preserve decision status

No design change is approved yet.

Close with purpose

Choose the solution after separating the two problems.

Precision in real exchanges

Purpose: Split the evidence

Useful wording: Eight tickets concern finding the action; four concern permission.

Purpose: Name the first issue

Useful wording: The existing action may have a discoverability problem.

D Choose the response that fits

Choose one response for each situation. Preserve the facts, the decision boundary, and the purpose of the exchange.

1. Which problem framing fits the tickets?

- A.** The product has no export capability.
- B.** All users require an extra home-page button.
- C.** Permission should be removed because navigation is unclear.
- D.** Users encounter two barriers: finding Export and understanding or obtaining the required permission.

2. Which statement overclaims the ticket evidence?

- A.** Eight tickets concern finding the existing action.
- B.** Four describe a permission restriction after finding it.
- C.** Every user is unable to export.
- D.** Twelve relevant tickets were reviewed.

3. A colleague needs the term for this meaning: An outcome a user needs to accomplish. Which term fits?

- A.** research question
- B.** viability
- C.** permission
- D.** user need

D Choose the response that fits / continued

4. Rebuild the exchange from "One button request, two different problems". Morgan: "So the button might help eight of them, but it would leave the other four stuck. Can we keep those groups separate in the ticket summary?" Li: [missing response] Morgan: "I can attach the relevant ticket excerpts and task details. We should not just count the phrase cannot export when it can describe different experiences." Which response belongs in the gap?

- A.** Let us set a two-day discovery scope. We will examine these two paths and bring the findings back before choosing a design change.
- B.** Then discoverability is one issue, not the entire set. We should keep the four permission cases separate instead of treating cannot export as a single diagnosis.
- C.** Right. Their permission problem needs its own review. We can examine the explanation and request path without suggesting that legitimate access controls should disappear.
- D.** Trace the navigation path during the actual task. A clearer label, a different location, and an additional button are distinct options rather than interchangeable fixes.

[Answers and explanations, page 114](#)

One useful distinction

Twelve tickets are support evidence, not a census of all users. Eight describe finding the action, and four describe permission. A new button might help the first group but would not itself give the second group authorization to export.

E Conversation

One button request, two different problems

One button request, two different problems

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

solution request / navigation path / problem statement / discovery scope / prototype / discoverability / research question / support evidence / permission / user need

- 01 **Morgan:** Can we put an Export button on the home page? Support keeps hearing that people cannot export, and I would like something visible we can point them to.
- 02 **Li:** I want to address that, but let us separate the ¹ _____ from the problem. The existing action already exports, so what happened when these users tried to reach it?
- 03 **Morgan:** We reviewed twelve tickets from last month. Eight users could not find the action. Four found it but did not have the required permission.
- 04 **Li:** Then ² _____ is one issue, not the entire set. We should keep the four permission cases separate instead of treating cannot export as a single diagnosis.
- 05 **Morgan:** So the button might help eight of them, but it would leave the other four stuck. Can we keep those groups separate in the ticket summary?
- 06 **Li:** Right. Their ³ _____ problem needs its own review. We can examine the explanation and request path without suggesting that legitimate access controls should disappear.
- 07 **Morgan:** I can attach the relevant ticket excerpts and task details. We should not just count the phrase cannot export when it can describe different experiences.
- 08 **Li:** That makes the ⁴ _____ more useful. It still does not tell us how common either problem is across all users, so keep that broader claim out of the summary.
- 09 **Morgan:** For the navigation cases, I would like to know where people started and which menu labels they tried. That could explain why the existing location was missed.
- 10 **Li:** Trace the ⁵ _____ during the actual task. A clearer label, a different location, and an additional button are distinct options rather than interchangeable fixes.

Conversation continues on the next page.

One button request, two different problems

CONVERSATION / CONTINUED

- 11 **Morgan:** How much investigation are we talking about? Support needs a date for an update, even if we cannot promise a fix yet.
- 12 **Li:** Let us set a two-day ⁶ _____. We will examine these two paths and bring the findings back before choosing a design change.
- 13 **Morgan:** For the navigation work, the question should be whether people can find the action when they need it, not whether they like our preferred button idea.
- 14 **Li:** That is a better ⁷ _____. We can observe what happens and compare the evidence with the assumption behind the request.
- 15 **Morgan:** The permission review should also check whether the message explains why access is unavailable and what the legitimate next step is. It should not promise access automatically.
- 16 **Li:** Agreed. Keep the ⁸ _____ separate from a specific control. The product should help users understand the path without disguising an authorization decision as a navigation change.
- 17 **Morgan:** Once we have the observations, we can decide whether to test a revised label, a new location, or another design. We do not have to build every option.
- 18 **Li:** A ⁹ _____ may help compare the relevant direction before implementation. The choice should follow what we learn, not merely the most visible suggestion in the initial request.
- 19 **Morgan:** I will prepare the ticket groups and coordinate the review. Our status will say that we have agreed the investigation, not approved a new home-page feature.
- 20 **Li:** Good. Record the ¹⁰ _____ with both barriers and the remaining uncertainty. That gives Support a clear next step and gives the product team a useful basis for choosing a solution.

CHECK THE GAPS

1. solution request / 2. discoverability / 3. permission / 4. support evidence / 5. navigation path / 6. discovery scope / 7. research question / 8. user need / 9. prototype / 10. problem statement

[Why these answers fit, page 115](#)

F Check accuracy and scope

One button request, two different problems

Return to the case

Support lead Morgan asks product manager Li for a new Export button on the home page. Their review finds 12 relevant tickets from the past month: eight users could not find the existing action, while four found it but lacked the required permission. The records do not show how common either problem is among all users. No design change is approved. Morgan and Li agree to separate the two issues and prepare a two-day investigation of navigation and permission messaging before choosing a solution.

Choose one answer per question. Use the case facts and keep any uncertainty or limits intact.

1. Which discovery task is appropriately focused?

- A. Redesign every product screen without a defined question.
- B. Approve the requested button before examining either issue.
- C. Ask Support to stop recording permission concerns.
- D. Observe the export path and review permission messaging for the two ticket groups.

2. Why is adding a button not a complete answer for the four permission cases?

- A. Finding an action and being authorized to use it are separate conditions.
- B. A visible button always removes authorization requirements.
- C. Permission has no relationship to export use.
- D. The four users never found the action.

[Answers and explanations, page 117](#)

Listen for the distinction

Switch roles for turns 11-20. Pause after the two-day limit and the no-approval statement.

Clarification is not rejection

A stakeholder may offer a solution because it makes a recurring problem tangible. Acknowledge the problem, then separate the proposed implementation from the evidence. Agree a small next step so the conversation does not feel like an indefinite research delay.

F Say it / transfer to a new case

A visible action can still be restricted

Ten tickets are reviewed. Six users could not find Download. Four found it but lacked permission. No design change is approved, and the records do not represent all users.

Complete the four gaps. With a partner, read alternate roles, then switch. Studying alone, read both roles and pause before each response.

WORD AND PHRASE BANK

approved / discoverability / permission / users

- 01 **Support:** Six tickets concern ¹ _____.
- 02 **Product:** Four concern ² _____.
- 03 **Support:** A design change is not yet ³ _____.
- 04 **Product:** These records are a ticket sample, not all ⁴ _____.

CHECK THE GAPS

1. discoverability / 2. permission / 3. approved / 4. users

[Why these answers fit, page 117](#)

Rebuild the exchange

Choose the missing response. Read the completed three-turn exchange aloud, changing roles on the second reading.

1. Rebuild the exchange from "One button request, two different problems". Morgan: "For the navigation work, the question should be whether people can find the action when they need it, not whether they like our preferred button idea." Li: [missing response] Morgan: "The permission review should also check whether the message explains why access is unavailable and what the legitimate next step is. It should not promise access automatically." Which response belongs in the gap?

- A.** Let us set a two-day discovery scope. We will examine these two paths and bring the findings back before choosing a design change.
- B.** Right. Their permission problem needs its own review. We can examine the explanation and request path without suggesting that legitimate access controls should disappear.
- C.** Trace the navigation path during the actual task. A clearer label, a different location, and an additional button are distinct options rather than interchangeable fixes.
- D.** That is a better research question. We can observe what happens and compare the evidence with the assumption behind the request.

[Answers and explanations, page 118](#)

A Read the situation

LESSON 02 / ROADMAPS AND PRIORITIZATION

Apply agreed priorities to a capacity conflict, explain the displaced work, and distinguish a review date from a delivery promise.

Three urgent requests, two delivery slots

Product owner Nora and commercial sponsor Samir review three features. A improves setup recovery and directly supports the agreed activation goal. B provides audit export needed for a recorded October 31 customer commitment. C refreshes the home page; no fixed commitment or activation evidence is supplied for it. Each feature needs one of two available delivery slots, and splitting them is not feasible this cycle. The agreed rule is to protect fixed commitments first, then the activation goal. Nora proposes B and A, with C reviewed again in two weeks.

People: Nora, Product owner; Samir, Commercial sponsor.

Read the record

Choose one answer per question using the facts above.

1. Which feature addresses the recorded fixed commitment?

- A. C, home-page refresh
- B. All three have the same recorded commitment
- C. B, audit export
- D. A, setup recovery

2. Which pair follows the agreed priority rule?

- A. All three within two slots
- B. B and A
- C. A and C
- D. B and C

3. What does the two-week date mean for C?

- A. Guaranteed production release
- B. Evidence that C already supports activation
- C. Permission to use a third slot
- D. A review point, not a promised delivery date

[Answers and explanations, page 119](#)

B Vocabulary in use

CORE TERMS

product roadmap

A communication of intended product direction and priorities over time.

update the product roadmap

prioritization criterion

A stated basis for ordering competing work.

apply prioritization criteria

delivery slot

A defined allocation of capacity for planned work.

allocate a delivery slot

time-critical work

Work whose value or obligation depends on a specific timing need.

identify time-critical work

trade-off

A choice that gains one benefit while giving up another.

make the trade-off explicit

dependency

An input or condition required for another item to proceed.

identify a dependency

product goal

The future product outcome guiding a defined body of work.

align with the product goal

capacity constraint

A limit on work the team can undertake in the period.

state the capacity constraint

fixed commitment

A recorded obligation treated as non-discretionary in the stated planning rule.

protect a fixed commitment

opportunity cost

The value of the best displaced alternative.

explain opportunity cost

sequencing

Ordering work to respect priorities and dependencies.

agree the sequencing

deferred item

Work deliberately moved outside the current period.

record a deferred item

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

product roadmap **PRODUCT ROADMAP**

update the product roadmap

Keep the meaning precise: A communication of intended product direction and priorities over time.

fixed commitment **FIXED COMMITMENT**

protect a fixed commitment

Keep the meaning precise: A recorded obligation treated as non-discretionary in the stated planning rule.

B Precision and professional shorthand

EXTEND YOUR RANGE

backlog ordering

Arranging planned work by current priority.

revise backlog ordering

escalation

Raising a decision beyond the current authority or agreement.

define the escalation route

decision log

A record of choices, rationale, and relevant context.

maintain the decision log

confidence level

Stated certainty in an estimate or claim under its defined basis.

qualify the confidence level

cost of delay

The consequence of postponing work over a stated period.

assess cost of delay

planning horizon

The period covered by a planning discussion.

state the planning horizon

sponsor

A stakeholder advocating or accountable for a proposed investment.

brief the sponsor

decision rule

An agreed method for selecting among alternatives.

use the decision rule

scope split

Dividing work into independently useful smaller parts.

assess a scope split

effort estimate

An assessment of the work needed to deliver an item.

review the effort estimate

review trigger

A condition prompting reconsideration of a decision.

define the review trigger

forecast

A current estimate of a future result, not necessarily a commitment.

distinguish forecast from commitment

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

deferred item DEFERRED ITEM

record a deferred item

Keep the meaning precise: Work deliberately moved outside the current period.

decision log DECISION LOG

maintain the decision log

Keep the meaning precise: A record of choices, rationale, and relevant context.

Phrases that move the work forward

State the capacity

We have two slots for three one-slot features.

Protect the commitment

B addresses the recorded October 31 commitment.

Qualify the third request

C has no supplied fixed commitment or activation evidence.

Name the consequence

C moves outside this cycle.

Check splitting honestly

The team has assessed splitting as infeasible this cycle.

Invite relevant evidence

What new fact would change C's priority under our rule?

Define reconsideration

We will review C again in two weeks.

Record the basis

Put the selected pair and displaced work in the decision log.

Name the shared rule

Fixed commitments come first, then the activation goal.

Connect the outcome

A directly supports setup recovery and activation.

Make the selection

On this basis, I recommend B and A.

Ask what gives way

Which selected item would C displace?

Avoid false capacity

Calling all three urgent does not create another slot.

Separate appeal from decision

I can record your objection without pretending the priority changed.

Avoid a hidden promise

That review date is not a release commitment.

Close consistently

Communicate the same scope and timing status to every sponsor.

Precision in real exchanges

Purpose: Connect the outcome

Useful wording: A directly supports setup recovery and activation.

Purpose: Qualify the third request

Useful wording: C has no supplied fixed commitment or activation evidence.

D Choose the response that fits

Choose one response for each situation. Preserve the facts, the decision boundary, and the purpose of the exchange.

1. Which response best explains deferring C?

- A.** C will definitely ship at the two-week review.
- B.** B protects the fixed commitment and A supports activation; C does not fit the two-slot capacity.
- C.** C is unimportant because its sponsor disagrees.
- D.** C is secretly included without additional capacity.

2. If C is added with no capacity change, what must happen?

- A.** The October 31 commitment is automatically withdrawn.
- B.** A or B must be displaced.
- C.** All three still occupy only two slots.
- D.** Splitting becomes feasible because the sponsor requests it.

3. A colleague needs the term for this meaning: A limit on work the team can undertake in the period. Which term fits?

- A.** escalation
- B.** capacity constraint
- C.** trade-off
- D.** cost of delay

D Choose the response that fits / continued

4. Rebuild the exchange from "Three urgent requests, two delivery slots". Samir: "The audit export has the October thirty-first customer commitment. That is different from my team's interest in showing a more current home page." Nora: [missing response] Samir: "That leaves one slot. Setup recovery directly supports activation, which is the outcome we agreed to improve this cycle. We have not supplied similar evidence for the refresh." Which response belongs in the gap?

- A.** Yes. B protects that fixed commitment. We should not displace it without explicitly addressing the obligation and the required authority, rather than treating it as another optional preference.
- B.** Correct. C is a deferred item, and the two-week meeting is a review point. It is not automatic approval for the next cycle or a hidden delivery commitment.
- C.** We asked about a scope split, and the team says it is not feasible this cycle. We cannot count on a smaller item without a supported estimate and usable scope.
- D.** The agreed decision rule is fixed commitments first, then the activation goal. It gives us a shared basis instead of comparing the intensity of each sponsor's request.

[Answers and explanations, page 119](#)

One useful distinction

With two slots and three one-slot features, selecting C displaces A or B. Under the supplied rule, B comes first because of the recorded commitment, followed by A because it supports activation. No evidence permits treating all three as simultaneously feasible.

E Conversation

Three urgent requests, two delivery slots

Three urgent requests, two delivery slots

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

review trigger / capacity constraint / fixed commitment / opportunity cost / scope split / product goal / deferred item / decision log / decision rule / product roadmap

- 01 **Samir:** All three sponsors are calling their feature urgent. My team wants the home-page refresh included because we have already discussed it in several customer conversations.
- 02 **Nora:** We have a ¹ _____. There are two slots, and the team has assessed each feature at one slot. We need to choose rather than announce a scope the team cannot deliver.
- 03 **Samir:** Understood. But I need more than "there is no room" for the sponsor. Can you walk me through the rule we agreed?
- 04 **Nora:** The agreed ² _____ is fixed commitments first, then the activation goal. It gives us a shared basis instead of comparing the intensity of each sponsor's request.
- 05 **Samir:** The audit export has the October thirty-first customer commitment. That is different from my team's interest in showing a more current home page.
- 06 **Nora:** Yes. B protects that ³ _____. We should not displace it without explicitly addressing the obligation and the required authority, rather than treating it as another optional preference.

E Conversation / continued

- 07 **Samir:** That leaves one slot. Setup recovery directly supports activation, which is the outcome we agreed to improve this cycle. We have not supplied similar evidence for the refresh.
- 08 **Nora:** A therefore aligns with the ⁴ _____. My recommendation is B and A, with C outside this cycle. That is a relative priority decision, not a claim that C can never matter.
- 09 **Samir:** Could we include a smaller refresh alongside the other two? I want to test that option before telling the sponsor the request has moved out.
- 10 **Nora:** We asked about a ⁵ _____, and the team says it is not feasible this cycle. We cannot count on a smaller item without a supported estimate and usable scope.

Conversation continues on the next page.

Three urgent requests, two delivery slots

CONVERSATION / CONTINUED

- 11 **Samir:** Then putting C back in would require removing one of the selected features. The trade-off should be stated plainly instead of hidden in an overloaded roadmap.
- 12 **Nora:** Exactly. Explain the ⁶ _____. Choosing the refresh means giving up the selected work that would otherwise occupy that slot under our current capacity.
- 13 **Samir:** I can explain that to the sponsor. How can we bring new evidence back if a specific customer consequence becomes clearer?
- 14 **Nora:** Set a ⁷ _____. Relevant new evidence can change the decision, but the review must still account for the fixed commitment, activation goal, and available capacity.
- 15 **Samir:** Two weeks is a review, then, not a release date? I need to correct that in my customer-call notes before it becomes an expectation.
- 16 **Nora:** Correct. C is a ⁸ _____, and the two-week meeting is a review point. It is not automatic approval for the next cycle or a hidden delivery commitment.
- 17 **Samir:** Please record the rationale for every sponsor. Different informal explanations could make a consistent decision look arbitrary.
- 18 **Nora:** I will update the ⁹ _____ with B and A, the capacity limit, and the review point for C. Your concern and the relevant evidence request will be recorded too.
- 19 **Samir:** Then I will tell the commercial team that the refresh is deferred under the agreed rule, not canceled forever, and that the next discussion needs evidence rather than another urgency label.
- 20 **Nora:** That keeps the ¹⁰ _____ honest. We can pursue the current goal while leaving a clear route to reconsider the deferred request when the facts change.

CHECK THE GAPS

1. capacity constraint / 2. decision rule / 3. fixed commitment / 4. product goal / 5. scope split / 6. opportunity cost / 7. review trigger / 8. deferred item / 9. decision log / 10. product roadmap

[Why these answers fit, page 121](#)

F Check accuracy and scope

Three urgent requests, two delivery slots

Return to the case

Product owner Nora and commercial sponsor Samir review three features. A improves setup recovery and directly supports the agreed activation goal. B provides audit export needed for a recorded October 31 customer commitment. C refreshes the home page; no fixed commitment or activation evidence is supplied for it. Each feature needs one of two available delivery slots, and splitting them is not feasible this cycle. The agreed rule is to protect fixed commitments first, then the activation goal. Nora proposes B and A, with C reviewed again in two weeks.

Choose one answer per question. Use the case facts and keep any uncertainty or limits intact.

1. What new information could justify reconsideration?

- A. Relevant evidence changing C's position under the agreed criteria
- B. The same urgent label repeated more loudly
- C. A review date mislabeled as a delivery promise
- D. An assumption that effort estimates no longer matter

2. Which statement about the review is accurate?

- A. The review cancels the current pair automatically.
- B. The review proves C has no possible future value.
- C. C will be reconsidered in two weeks without a promised delivery date.
- D. C is guaranteed in production within two weeks.

[Answers and explanations, page 122](#)

Listen for the distinction

Switch roles for turns 11-20. Contrast a review point with a delivery promise.

Make the deferred work visible

A clear no for this cycle can be more useful than an impossible yes. Explain the shared criterion, the capacity constraint, and the work that would be displaced by a change. Give the deferred request an honest review point without quietly promising the next release.

F Say it / transfer to a new case

Two slots still mean two choices

There are two slots. X protects a fixed commitment; Y supports the agreed activation goal; Z has neither supplied basis. Each needs one slot, and splitting is infeasible. The rule prioritizes commitments, then activation.

Complete the four gaps. With a partner, read alternate roles, then switch. Studying alone, read both roles and pause before each response.

WORD AND PHRASE BANK

X / Z / trade-off / Y

- 01 **Product:** The first selection is ¹ _____.
- 02 **Sponsor:** The second selection is ² _____.
- 03 **Product:** The deferred item is ³ _____.
- 04 **Sponsor:** Adding it requires a ⁴ _____.

CHECK THE GAPS

1. X / 2. Y / 3. Z / 4. trade-off

[Why these answers fit, page 122](#)

Rebuild the exchange

Choose the missing response. Read the completed three-turn exchange aloud, changing roles on the second reading.

1. Rebuild the exchange from "Three urgent requests, two delivery slots". Samir: "I can explain that to the sponsor. How can we bring new evidence back if a specific customer consequence becomes clearer?" Nora: [missing response] Samir: "Two weeks is a review, then, not a release date? I need to correct that in my customer-call notes before it becomes an expectation." Which response belongs in the gap?

- A.** Set a review trigger. Relevant new evidence can change the decision, but the review must still account for the fixed commitment, activation goal, and available capacity.
- B.** Yes. B protects that fixed commitment. We should not displace it without explicitly addressing the obligation and the required authority, rather than treating it as another optional preference.
- C.** The agreed decision rule is fixed commitments first, then the activation goal. It gives us a shared basis instead of comparing the intensity of each sponsor's request.
- D.** That keeps the product roadmap honest. We can pursue the current goal while leaving a clear route to reconsider the deferred request when the facts change.

[Answers and explanations, page 123](#)

Review 1 / Meaning and context

Use language from the lessons you have completed. Choose one answer per question.

Case file

Revisit "Product Discovery and Problem Framing" and "Roadmaps and Prioritization". Choose precise terminology, then reconstruct the missing responses using both neighboring turns. The final two questions also revisit earlier conversations.

1. A colleague needs the term for this meaning: A request for a particular implementation or feature. Which term fits?

- A. solution request
- B. feasibility
- C. task success
- D. discoverability

2. A colleague needs the term for this meaning: The value of the best displaced alternative. Which term fits?

- A. confidence level
- B. product roadmap
- C. backlog ordering
- D. opportunity cost

3. Rebuild the exchange from "One button request, two different problems". Morgan: "For the navigation cases, I would like to know where people started and which menu labels they tried. That could explain why the existing location was missed." Li: [missing response] Morgan: "How much investigation are we talking about? Support needs a date for an update, even if we cannot promise a fix yet." Which response belongs in the gap?

- A. Then discoverability is one issue, not the entire set. We should keep the four permission cases separate instead of treating cannot export as a single diagnosis.
- B. Trace the navigation path during the actual task. A clearer label, a different location, and an additional button are distinct options rather than interchangeable fixes.
- C. Right. Their permission problem needs its own review. We can examine the explanation and request path without suggesting that legitimate access controls should disappear.
- D. Let us set a two-day discovery scope. We will examine these two paths and bring the findings back before choosing a design change.

Review 1 / Meaning and context / continued

4. Rebuild the exchange from "Three urgent requests, two delivery slots". Samir: "Please record the rationale for every sponsor. Different informal explanations could make a consistent decision look arbitrary." Nora: [missing response] Samir: "Then I will tell the commercial team that the refresh is deferred under the agreed rule, not canceled forever, and that the next discussion needs evidence rather than another urgency label." Which response belongs in the gap?

- A.** I will update the decision log with B and A, the capacity limit, and the review point for C. Your concern and the relevant evidence request will be recorded too.
- B.** Yes. B protects that fixed commitment. We should not displace it without explicitly addressing the obligation and the required authority, rather than treating it as another optional preference.
- C.** We asked about a scope split, and the team says it is not feasible this cycle. We cannot count on a smaller item without a supported estimate and usable scope.
- D.** We have a capacity constraint. There are two slots, and the team has assessed each feature at one slot. We need to choose rather than announce a scope the team cannot deliver.

[Answers and explanations, page 154](#)

A Read the situation

LESSON 03 / USER STORIES AND ACCEPTANCE CRITERIA

Turn a vague performance request into a checkable criterion and distinguish that criterion from the wider completion standard.

Quickly needs a clock and a test condition

Product manager Eva and test lead Omar refine a story saying an authorized editor should open the records page quickly. They agree a fictional acceptance test: 100 navigations with the fixed 1,000-record dataset and test profile N, timed from the navigation click until records and the primary action are usable. At least 95 runs must finish within 2 seconds, and every run within 5 seconds without an error. A trial records 96 within 2 seconds and four more within 4.5 seconds, with no errors. Other completion checks remain open.

People: Eva, Product manager; Omar, Test lead.

Read the record

Choose one answer per question using the facts above.

1. When does the stated timing end?

- A. When the first network request is sent
- B. When a blank loading shell appears
- C. When the tester closes the browser
- D. When records and the primary action are usable

2. Does the trial meet the stated timing and error criterion?

- A. No; all 100 had to finish within 2 seconds.
- B. Yes; a blank page appeared quickly.
- C. No; the dataset had to contain 100 records.
- D. Yes; 96 finish within 2 seconds and all finish within 5 seconds without errors.

3. What remains open after this trial?

- A. The trial's no-error observation
- B. Other completion checks
- C. The supplied count of 100 navigations
- D. The stated dataset size of 1,000 records

[Answers and explanations, page 124](#)

B Vocabulary in use

CORE TERMS

user story

A short description of user, capability, and intended benefit.

refine the user story

Definition of Done

The agreed quality standard for a completed increment in Scrum.

meet the Definition of Done

nonfunctional requirement

A required quality or constraint, such as performance.

clarify a nonfunctional requirement

postcondition

A state expected after the action completes.

verify the postcondition

test profile

The defined environment and conditions for a test.

use the agreed test profile

usable state

The condition in which the intended task can actually be performed.

define the usable state

acceptance criterion

A checkable condition for accepting a specific item.

define acceptance criteria

functional requirement

A required behavior or capability.

specify a functional requirement

precondition

A state that must exist before the test or action.

state the precondition

test fixture

Controlled data and setup used for a repeatable test.

prepare the test fixture

navigation event

The action that initiates movement to a page or view.

timestamp the navigation event

latency

Time between a defined initiating event and response.

measure latency

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

user story **USER STORY**

refine the user story

Keep the meaning precise: A short description of user, capability, and intended benefit.

precondition **PRECONDITION**

state the precondition

Keep the meaning precise: A state that must exist before the test or action.

B Precision and professional shorthand

EXTEND YOUR RANGE

response-time threshold

A specified boundary for an acceptable duration.
set the response-time threshold

tail latency

Response times in the slower part of a distribution.
monitor tail latency

error state

A condition showing that the requested operation did not complete as intended.
handle the error state

edge case

An unusual or limiting situation that requires defined behavior.
cover edge cases

testability

The ability to evaluate a requirement with a defined check.
improve testability

acceptance test

A test evaluating agreed acceptance conditions.
run the acceptance test

percentile

A position in a distribution defined by a proportion of observations.
report the percentile basis

timeout

A defined limit after which an operation stops waiting.
specify timeout behavior

empty state

The interface shown when no relevant content is available.
design the empty state

happy path

The intended successful sequence without exceptional conditions.
test the happy path

ambiguity

Wording that allows conflicting interpretations.
remove ambiguity

completion evidence

Records supporting a claim that required work is complete.
attach completion evidence

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

latency **LATENCY**

measure latency

Keep the meaning precise: Time between a defined initiating event and response.

error state **ERROR STATE**

handle the error state

Keep the meaning precise: A condition showing that the requested operation did not complete as intended.

Phrases that move the work forward

Clarify the user state

The story concerns an authorized editor.

Define the start

Start the clock at the navigation click.

Fix the test data

Use the agreed 1,000-record dataset.

State the main threshold

At least 95 of 100 runs must finish within 2 seconds.

Include failure behavior

The test must complete without an error.

Distinguish statistics

An average does not establish the required run count.

Keep the scope

This result applies to the defined test conditions.

Preserve open work

The remaining completion checks are still open.

Replace the adjective

Quickly needs a measurable timing rule.

Define the finish

Stop when the records and primary action are usable.

Name the environment

Run under test profile N.

Bound the slow runs

Every run must finish within 5 seconds.

Avoid a convenient proxy

A visible loading shell is not a usable records page.

Report the evidence

Ninety-six runs met 2 seconds; all met the ceiling.

Separate completion layers

This acceptance criterion does not replace the Definition of Done.

Close the story carefully

Attach the evidence before changing the completion status.

Precision in real exchanges

Purpose: Define the finish

Useful wording: Stop when the records and primary action are usable.

Purpose: Fix the test data

Useful wording: Use the agreed 1,000-record dataset.

D Choose the response that fits

Choose one response for each situation. Preserve the facts, the decision boundary, and the purpose of the exchange.

1. Which criterion matches the agreed performance rule?

- A.** At least 95 of 100 defined navigations usable within 2 seconds, all within 5, without errors
- B.** Average navigation time below 2 seconds, with every run below 5
- C.** At least 95 loading shells visible within 2 seconds, with no request errors
- D.** All 100 navigations usable within 5 seconds, regardless of the two-second count

2. What if only 94 runs meet 2 seconds, while all finish before 5 seconds without errors?

- A.** The stated criterion fails.
- B.** It passes because the slow ceiling is met.
- C.** It passes because 94 is close to 95.
- D.** No conclusion is possible about the supplied count rule.

3. A colleague needs the term for this meaning: A required behavior or capability. Which term fits?

- A.** tail latency
- B.** test profile
- C.** testability
- D.** functional requirement

D Choose the response that fits / continued

4. Rebuild the exchange from "Quickly needs a clock and a test condition". Eva: "We should fix the data as well. Let us use the agreed one-thousand-record dataset so a smaller empty page does not stand in for the actual check." Omar: [missing response] Eva: "For the main threshold, I propose that at least ninety-five of one hundred navigations finish within two seconds. We should also define what happens to the slower runs." Which response belongs in the gap?

- A.** Yes. The happy path is not the entire behavior of the product. Keep the remaining checks visible rather than let one useful test stand for everything.
- B.** Correct. Tail latency matters to the experience too. Keep the exact rule in the story rather than replace it with a different summary statistic during reporting.
- C.** Use that test fixture with profile N. The evidence needs its configuration attached so another reviewer can understand what was measured and repeat the check appropriately.
- D.** Add a response-time threshold of five seconds for every run, with no errors. That prevents a good fast-run count from concealing an unacceptable slow tail.

[Answers and explanations, page 124](#)

One useful distinction

The empirical rule here is at least 95 of 100 runs within 2 seconds, with every run within 5 seconds and no errors. It is not an average-time target. A different percentile calculation convention should not silently replace the agreed count-based test.

E Conversation

Quickly needs a clock and a test condition

Quickly needs a clock and a test condition

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

acceptance criterion / acceptance test / completion evidence / response-time threshold / usable state / happy path / Definition of Done / Tail latency / test profile / test fixture

- 01 **Eva:** The story says an authorized editor should open the records page quickly. Engineering asked what quickly means, and I can see that we have left too much room for interpretation.
- 02 **Omar:** Let us define an ¹ _____ tied to the task. What event starts the timing, and what must be usable before we say the page has finished loading?
- 03 **Eva:** Start at the navigation click. Finish when the records are available and the primary action works, not when the user sees only a loading shell.
- 04 **Omar:** That defines the ² _____. A visible placeholder is not enough because the editor still cannot perform the intended task at that point.
- 05 **Eva:** We should fix the data as well. Let us use the agreed one-thousand-record dataset so a smaller empty page does not stand in for the actual check.
- 06 **Omar:** Use that ³ _____ with profile N. The evidence needs its configuration attached so another reviewer can understand what was measured and repeat the check appropriately.
- 07 **Eva:** For the main threshold, I propose that at least ninety-five of one hundred navigations finish within two seconds. We should also define what happens to the slower runs.
- 08 **Omar:** Add a ⁴ _____ of five seconds for every run, with no errors. That prevents a good fast-run count from concealing an unacceptable slow tail.
- 09 **Eva:** The dashboard gives me an average. Could you send the individual run counts as well? Otherwise I cannot check our ninety-five-out-of-a-hundred rule.
- 10 **Omar:** Correct. ⁵ _____ matters to the experience too. Keep the exact rule in the story rather than replace it with a different summary statistic during reporting.

Conversation continues on the next page.

Quickly needs a clock and a test condition

CONVERSATION / CONTINUED

- 11 **Eva:** The trial produced ninety-six runs within two seconds. The other four finished within four point five seconds, and there were no errors.
- 12 **Omar:** Then this ⁶ _____ passes on the reported result. Ninety-six meets the minimum, and all one hundred remain within the separate ceiling without an error.
- 13 **Eva:** I can report that clearly, but I should not imply that every device, network, or dataset has been tested. The result belongs to the agreed setup.
- 14 **Omar:** Keep the ⁷ _____ visible. The conclusion applies to profile N and the defined data, not automatically to every environment a future user might have.
- 15 **Eva:** Can I mark the performance criterion passed and leave the story open? We still have completion checks outstanding, and I do not want to hide them.
- 16 **Omar:** Exactly. The ⁸ _____ is a separate completion standard where the team uses Scrum. One story-specific criterion does not replace the agreed quality requirements for the increment.
- 17 **Eva:** We should preserve the distinction between an ordinary successful path and the other states the product must handle. This test did not define every exceptional situation.
- 18 **Omar:** Yes. The ⁹ _____ is not the entire behavior of the product. Keep the remaining checks visible rather than let one useful test stand for everything.
- 19 **Eva:** I will attach the results, keep the unresolved checks open, and use the exact criterion in the next review. That should end the debate over what quickly means here.
- 20 **Omar:** The ¹⁰ _____ will then support a precise status. We have a measurable requirement and a passing result within scope, without quietly changing the meaning of done.

CHECK THE GAPS

1. acceptance criterion / 2. usable state / 3. test fixture / 4. response-time threshold / 5. Tail latency / 6. acceptance test / 7. test profile / 8. Definition of Done / 9. happy path / 10. completion evidence

[Why these answers fit, page 125](#)

F Check accuracy and scope

Quickly needs a clock and a test condition

Return to the case

Product manager Eva and test lead Omar refine a story saying an authorized editor should open the records page quickly. They agree a fictional acceptance test: 100 navigations with the fixed 1,000-record dataset and test profile N, timed from the navigation click until records and the primary action are usable. At least 95 runs must finish within 2 seconds, and every run within 5 seconds without an error. A trial records 96 within 2 seconds and four more within 4.5 seconds, with no errors. Other completion checks remain open.

Choose one answer per question. Use the case facts and keep any uncertainty or limits intact.

1. Why time until the primary action is usable?

- A. The user must be able to perform the intended task, not merely see a loading shell.
- B. A visual placeholder always proves the task can be completed.
- C. Network start and task readiness are identical by definition.
- D. The dataset size becomes irrelevant once anything appears.

2. What can Eva say after the actual trial?

- A. The whole increment automatically meets all quality requirements.
- B. The four slower runs were errors despite completing within the ceiling.
- C. This criterion passed under profile N; other completion checks remain open.
- D. Every possible user environment is proven fast.

[Answers and explanations, page 127](#)

Listen for the distinction

Switch roles for turns 11-20. Keep criterion passed distinct from story complete.

Define completion together

A product manager can specify the user outcome without prescribing every engineering detail. A test lead can make it measurable without replacing that outcome with a convenient technical proxy. Agree the user state, timing boundaries, test basis, and pass rule in language both can defend.

F Say it / transfer to a new case

A ceiling does not replace the main rule

A test requires at least 95 of 100 runs within 2 seconds and all within 5 seconds without errors. The result is 93 within 2 seconds; the remaining seven finish within 4 seconds without errors.

Complete the four gaps. With a partner, read alternate roles, then switch. Studying alone, read both roles and pause before each response.

WORD AND PHRASE BANK

seconds / fails / 93 / 95

- 01 **Tester:** The fast-run count is ¹ _____.
- 02 **Product:** The required fast-run count is at least ² _____.
- 03 **Tester:** The overall criterion ³ _____.
- 04 **Product:** The recorded timing unit is ⁴ _____.

CHECK THE GAPS

1. 93 / 2. 95 / 3. fails / 4. seconds

[Why these answers fit, page 127](#)

Rebuild the exchange

Choose the missing response. Read the completed three-turn exchange aloud, changing roles on the second reading.

1. Rebuild the exchange from "Quickly needs a clock and a test condition". Eva: "I can report that clearly, but I should not imply that every device, network, or dataset has been tested. The result belongs to the agreed setup." Omar: [missing response] Eva: "Can I mark the performance criterion passed and leave the story open? We still have completion checks outstanding, and I do not want to hide them." Which response belongs in the gap?

- A.** Keep the test profile visible. The conclusion applies to profile N and the defined data, not automatically to every environment a future user might have.
- B.** Use that test fixture with profile N. The evidence needs its configuration attached so another reviewer can understand what was measured and repeat the check appropriately.
- C.** Add a response-time threshold of five seconds for every run, with no errors. That prevents a good fast-run count from concealing an unacceptable slow tail.
- D.** Then this acceptance test passes on the reported result. Ninety-six meets the minimum, and all one hundred remain within the separate ceiling without an error.

[Answers and explanations, page 128](#)

A Read the situation

LESSON 04 / METRICS, FUNNELS, AND PRODUCT ANALYTICS

Explain opposing funnel movements using aligned cohorts, counts, rates, and an explicit limit on causal interpretation.

More signups, fewer completed setups

Analyst Imani and growth lead Alex compare two fully matured signup cohorts using the same seven-day setup-completion definition. The earlier cohort has 1,000 signups and 600 completions; the later cohort has 1,500 signups and 500 completions. Event counts are verified. A campaign ran during the later period, but other conditions were not controlled, and no causal attribution is established. Alex calls the campaign a complete success. Imani must explain acquisition growth alongside the decline in completed setups and completion rate.

People: Alex, Growth lead; Imani, Product analyst.

Read the record

Choose one answer per question using the facts above.

1. How did signup count change?

- A. It rose from 1,000 to 1,500, a 50% increase.
- B. It fell from 600 to 500.
- C. It stayed at 1,000.
- D. It rose by 500 percentage points.

2. How did completed setup count change?

- A. It rose from 1,000 to 1,500.
- B. It remained at 600.
- C. It rose to 1,500 because every signup completed.
- D. It fell from 600 to 500.

3. What makes the time windows comparable here?

- A. The campaign name replaces the observation period.
- B. Both cohorts have completed the same seven-day observation window.
- C. The later cohort is measured only on its first day.
- D. Each cohort uses a different definition of setup.

[Answers and explanations, page 129](#)

B Vocabulary in use

CORE TERMS

funnel

A defined sequence of steps toward a product outcome.

analyze the funnel

activation

A defined early milestone indicating initial product value.

define activation

conversion rate

The share of an eligible population completing a defined action.

calculate conversion rate

observation window

The period during which outcomes are counted.

align the observation window

event definition

The rules specifying when an analytics event is recorded.

maintain event definitions

event property

A recorded attribute attached to an event.

validate event properties

signup

A recorded account-registration event under the stated definition.

count valid signups

setup completion

Completion of the specified initial configuration steps.

measure setup completion

cohort

A group sharing a defined starting event or characteristic.

compare signup cohorts

mature cohort

A cohort whose required observation period has elapsed.

use mature cohorts

instrumentation

The implementation used to collect product events and measurements.

verify instrumentation

unique user

A distinct user under the stated identity rule.

count unique users

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

funnel FUNNEL

analyze the funnel

Keep the meaning precise: A defined sequence of steps toward a product outcome.

cohort COHORT

compare signup cohorts

Keep the meaning precise: A group sharing a defined starting event or characteristic.

B Precision and professional shorthand

EXTEND YOUR RANGE

deduplication

Removing repeated records of the same defined event or entity.

apply deduplication

drop-off

Loss of users between defined funnel steps.

locate funnel drop-off

segmentation

Dividing data into relevant user or context groups.

segment by acquisition channel

attribution

Assignment of credit for an outcome under a stated method.

qualify campaign attribution

leading indicator

A measure expected to precede a later outcome.

validate a leading indicator

guardrail metric

A measure used to detect unacceptable side effects.

monitor guardrail metrics

denominator

The eligible total used to calculate a rate.

verify the denominator

cohort maturity

The extent to which a cohort has completed its observation period.

check cohort maturity

channel mix

The composition of traffic from different acquisition sources.

examine channel mix

retention

Continued use or return under a defined time and activity rule.

measure retention

lagging indicator

A measure reflecting an outcome after relevant activity occurs.

report a lagging indicator

metric contract

An agreed definition of a metric's event, population, and calculation.

document the metric contract

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

unique user UNIQUE USER

count unique users

Keep the meaning precise: A distinct user under the stated identity rule.

segmentation SEGMENTATION

segment by acquisition channel

Keep the meaning precise: Dividing data into relevant user or context groups.

C Phrases that move the work forward

Acknowledge acquisition

Signups increased from 1,000 to 1,500.

Give the earlier rate

The earlier completion rate was 60%.

Name the rate difference

That is a decline of approximately 26.67 percentage points.

Confirm timing

Both cohorts have a full seven-day window.

Avoid a blanket success label

Acquisition improved, but the downstream outcome worsened.

Ask about the mix

Did the composition of acquisition channels change?

Protect the denominator

Use eligible signups from the same cohort.

Define the next analysis

Segment the funnel and check the relevant step-level evidence.

State the next outcome

Completed setups fell from 600 to 500.

Give the later rate

The later completion rate was approximately 33.33%.

Keep counts visible

We have 100 fewer completed setups despite more signups.

Confirm definitions

The setup-completion definition is unchanged.

Separate evidence from cause

The comparison does not isolate the campaign's effect.

Locate the friction

Which setup step accounts for the observed drop-off?

Avoid immature comparisons

Do not compare a one-day cohort with a complete seven-day cohort.

Close the update

Report acquisition, completion count, completion rate, and the causal limitation.

Precision in real exchanges

Purpose: Give the later rate

Useful wording: The later completion rate was approximately 33.33%.

Purpose: Name the rate difference

Useful wording: That is a decline of approximately 26.67 percentage points.

D Choose the response that fits

Choose one response for each situation. Preserve the facts, the decision boundary, and the purpose of the exchange.

1. Which summary represents both movements?

- A.** The campaign was a complete success because signups rose.
- B.** Setup completion improved because the denominator was larger.
- C.** The later cohort had not completed its observation window.
- D.** Signups increased, while completed setups and the setup-completion rate declined.

2. What is the later setup-completion rate?

- A.** Approximately 33.33%
- B.** 50%
- C.** 60%
- D.** 150%

3. A colleague needs the term for this meaning: Completion of the specified initial configuration steps. Which term fits?

- A.** drop-off
- B.** event definition
- C.** setup completion
- D.** leading indicator

D Choose the response that fits / continued

4. Rebuild the exchange from "More signups, fewer completed setups". Alex: "Then the counts describe a real difference in the recorded outcome, not merely an incomplete observation window. We gained five hundred signups but lost one hundred completed setups." Imani: [missing response] Alex: "That is sixty percent before and about thirty-three point three three percent later. The decline in the rate is larger than the decline in the completion count." Which response belongs in the gap?

- A.** Exactly. State setup completion in both forms when needed: five hundred completions and roughly thirty-three percent of signups. Neither should disappear behind the favorable acquisition headline.
- B.** The funnel shows a mixed result. Completed setups fell from six hundred to five hundred, even though more people entered at the signup stage.
- C.** Use segmentation with a clear purpose and consistent definitions. It can reveal where the problem is concentrated without pretending that every descriptive split proves causality.
- D.** Correct. Keep the denominator with each rate. The earlier rate is six hundred divided by one thousand, while the later is five hundred divided by fifteen hundred.

[Answers and explanations, page 129](#)

One useful distinction

Signups rose 50%, but completed setups fell by 100, about 16.67% relative to 600. Completion rates fell from 60% to about 33.33%, a decline of about 26.67 percentage points. Neither the count nor the rate alone describes the entire funnel.

E Conversation

More signups, fewer completed setups

More signups, fewer completed setups

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

conversion rate / instrumentation / drop-off / denominator / attribution / channel mix /
mature cohort / segmentation / setup completion / funnel

- 01 **Alex:** Signups increased from one thousand to fifteen hundred during the campaign period. I called that a complete success in the update, but you flagged the setup numbers.
- 02 **Imani:** The ¹ _____ shows a mixed result. Completed setups fell from six hundred to five hundred, even though more people entered at the signup stage.
- 03 **Alex:** I want to make sure the later group has had enough time. Comparing a new cohort with an older one could make completion look worse simply because users are still setting up.
- 04 **Imani:** Each is a ² _____ in this comparison. Both have a full seven-day window, and the setup-completion definition is the same in both periods.
- 05 **Alex:** Then the counts describe a real difference in the recorded outcome, not merely an incomplete observation window. We gained five hundred signups but lost one hundred completed setups.
- 06 **Imani:** Correct. Keep the ³ _____ with each rate. The earlier rate is six hundred divided by one thousand, while the later is five hundred divided by fifteen hundred.

E Conversation / continued

- 07 **Alex:** That is sixty percent before and about thirty-three point three three percent later. The decline in the rate is larger than the decline in the completion count.
- 08 **Imani:** Yes. The ⁴ _____ fell by about twenty-six point six seven percentage points. The count and the rate answer related but different questions.
- 09 **Alex:** I have sixteen point six seven percent in my slide. That is the fall in completed setups, not the change in conversion rate. I need separate labels.
- 10 **Imani:** Exactly. State ⁵ _____ in both forms when needed: five hundred completions and roughly thirty-three percent of signups. Neither should disappear behind the favorable acquisition headline.

Conversation continues on the next page.

More signups, fewer completed setups

CONVERSATION / CONTINUED

- 11 **Alex:** Could the campaign have attracted people who were less ready to configure the product? That seems plausible, but we have not examined the composition of the new signups.
- 12 **Imani:** Investigate ⁶ _____ and other relevant differences. Plausibility is a reason to analyze, not enough to assign the entire decline to the campaign.
- 13 **Alex:** Can we break setup into steps for the next review? I can see the loss in the total, but not where people got stuck.
- 14 **Imani:** Locate the ⁷ _____ using the appropriate step-level evidence. A product problem, a changed audience, and other explanations need different supporting records.
- 15 **Alex:** The event counts have been verified for this comparison. That removes one data-quality concern, but it does not make the business explanation automatic.
- 16 **Imani:** Correct. Verified ⁸ _____ supports trust in the observation. It does not show which uncontrolled difference between the periods caused the outcome.
- 17 **Alex:** The next analysis can compare relevant channels and user groups while keeping the seven-day definition fixed. We should not change the metric halfway through to recover a favorable result.
- 18 **Imani:** Use ⁹ _____ with a clear purpose and consistent definitions. It can reveal where the problem is concentrated without pretending that every descriptive split proves causality.
- 19 **Alex:** I will revise the update to say acquisition improved but the downstream completion outcome worsened. The campaign's overall contribution remains a question for analysis, not a settled success claim.
- 20 **Imani:** That qualifies ¹⁰ _____ appropriately. The team can acknowledge the signup gain and address the completion decline using the same honest account of the evidence.

CHECK THE GAPS

1. funnel / **2.** mature cohort / **3.** denominator / **4.** conversion rate / **5.** setup completion / **6.** channel mix / **7.** drop-off / **8.** instrumentation / **9.** segmentation / **10.** attribution

[Why these answers fit, page 131](#)

F Check accuracy and scope

More signups, fewer completed setups

Return to the case

Analyst Imani and growth lead Alex compare two fully matured signup cohorts using the same seven-day setup-completion definition. The earlier cohort has 1,000 signups and 600 completions; the later cohort has 1,500 signups and 500 completions. Event counts are verified. A campaign ran during the later period, but other conditions were not controlled, and no causal attribution is established. Alex calls the campaign a complete success. Imani must explain acquisition growth alongside the decline in completed setups and completion rate.

Choose one answer per question. Use the case facts and keep any uncertainty or limits intact.

1. What is the approximate rate decline in percentage points?

- A. 16.67
- B. 50.00
- C. 100.00
- D. 26.67

2. Which causal statement is supported?

- A. A specific product bug is already established as the cause.
- B. Verified counts automatically prove the marketing explanation.
- C. The campaign's causal effect is not isolated by this comparison.
- D. The campaign definitely caused all setup losses.

[Answers and explanations, page 132](#)

Listen for the distinction

Switch roles for turns 11-20. Stress possible explanations without making them causes.

Report the whole defined outcome

Different teams may optimize different stages of a funnel. Acknowledge the stage that improved, then show what happened at the next meaningful outcome. Use aligned time windows and denominators so a discussion about success does not become a contest between selectively chosen metrics.

F Say it / transfer to a new case

A bigger entrance, a smaller outcome

Two mature seven-day cohorts use the same definition. The first has 200 signups and 100 setup completions. The second has 400 signups and 80 completions. The cause is not established.

Complete the four gaps. With a partner, read alternate roles, then switch. Studying alone, read both roles and pause before each response.

WORD AND PHRASE BANK

30 / 20 / unestablished / 50

- 01 **Analyst:** The earlier completion rate was ¹ _____ percent.
- 02 **Growth:** The later rate was ² _____ percent.
- 03 **Analyst:** The rate declined by ³ _____ percentage points.
- 04 **Growth:** The cause remains ⁴ _____.

CHECK THE GAPS

1. 50 / 2. 20 / 3. 30 / 4. unestablished

[Why these answers fit, page 132](#)

Rebuild the exchange

Choose the missing response. Read the completed three-turn exchange aloud, changing roles on the second reading.

1. Rebuild the exchange from "More signups, fewer completed setups". Alex: "Can we break setup into steps for the next review? I can see the loss in the total, but not where people got stuck." Imani: [missing response] Alex: "The event counts have been verified for this comparison. That removes one data-quality concern, but it does not make the business explanation automatic." Which response belongs in the gap?

- A.** Correct. Verified instrumentation supports trust in the observation. It does not show which uncontrolled difference between the periods caused the outcome.
- B.** Yes. The conversion rate fell by about twenty-six point six seven percentage points. The count and the rate answer related but different questions.
- C.** Investigate channel mix and other relevant differences. Plausibility is a reason to analyze, not enough to assign the entire decline to the campaign.
- D.** Locate the drop-off using the appropriate step-level evidence. A product problem, a changed audience, and other explanations need different supporting records.

[Answers and explanations, page 133](#)

Review 2 / Meaning and context

Use language from the lessons you have completed. Choose one answer per question.

Case file

Revisit "User Stories and Acceptance Criteria" and "Metrics, Funnels, and Product Analytics". Choose precise terminology, then reconstruct the missing responses using both neighboring turns. The final two questions also revisit earlier conversations.

1. A colleague needs the term for this meaning: The agreed quality standard for a completed increment in Scrum. Which term fits?

- A. percentile
- B. happy path
- C. test fixture
- D. Definition of Done

2. A colleague needs the term for this meaning: A cohort whose required observation period has elapsed. Which term fits?

- A. funnel
- B. deduplication
- C. attribution
- D. mature cohort

3. Rebuild the exchange from "Three urgent requests, two delivery slots". Samir: "Could we include a smaller refresh alongside the other two? I want to test that option before telling the sponsor the request has moved out." Nora: [missing response] Samir: "Then putting C back in would require removing one of the selected features. The trade-off should be stated plainly instead of hidden in an overloaded roadmap." Which response belongs in the gap?

- A. Yes. B protects that fixed commitment. We should not displace it without explicitly addressing the obligation and the required authority, rather than treating it as another optional preference.
- B. We have a capacity constraint. There are two slots, and the team has assessed each feature at one slot. We need to choose rather than announce a scope the team cannot deliver.
- C. We asked about a scope split, and the team says it is not feasible this cycle. We cannot count on a smaller item without a supported estimate and usable scope.
- D. I will update the decision log with B and A, the capacity limit, and the review point for C. Your concern and the relevant evidence request will be recorded too.

Review 2 / Meaning and context / continued

4. Rebuild the exchange from "More signups, fewer completed setups". Alex: "The next analysis can compare relevant channels and user groups while keeping the seven-day definition fixed. We should not change the metric halfway through to recover a favorable result." Imani: [missing response] Alex: "I will revise the update to say acquisition improved but the downstream completion outcome worsened. The campaign's overall contribution remains a question for analysis, not a settled success claim." Which response belongs in the gap?

- A.** Use segmentation with a clear purpose and consistent definitions. It can reveal where the problem is concentrated without pretending that every descriptive split proves causality.
- B.** Each is a mature cohort in this comparison. Both have a full seven-day window, and the setup-completion definition is the same in both periods.
- C.** The funnel shows a mixed result. Completed setups fell from six hundred to five hundred, even though more people entered at the signup stage.
- D.** Exactly. State setup completion in both forms when needed: five hundred completions and roughly thirty-three percent of signups. Neither should disappear behind the favorable acquisition headline.

[Answers and explanations, page 157](#)

A Read the situation

LESSON 05 / EXPERIMENTATION AND A/B TESTING

Discuss interim experiment results without changing the decision rule after seeing favorable data, while preserving guardrail monitoring.

A day-one lead is not a final winner

Product manager Jules and experimentation analyst Priya review day one of a randomized test. Control A has 100 conversions from 1,000 eligible users; variant B has 120 from 1,000. The pre-agreed fixed-horizon plan requires 14 days and at least 10,000 eligible users per arm before the final analysis. No sequential early-success rule is approved. The safety guardrail pauses an arm if its defined error rate exceeds 3%; current B errors are 1.2%. Data-quality checks are clear so far. Jules wants to announce B as the winner.

People: Jules, Product manager; Priya, Experimentation analyst.

Read the record

Choose one answer per question using the facts above.

1. What are the observed conversion rates?

- A. A is 1% and B is 1.2%.
- B. Both are 20%.
- C. A is 10% and B is 12%.
- D. A is 100% and B is 120%.

2. Which final-analysis prerequisites remain unmet?

- A. Fourteen days and at least 10,000 users per arm
- B. A day-one screenshot only
- C. A shared denominator of 1,000
- D. The current absence of a guardrail breach

3. Does B currently exceed the specified error guardrail?

- A. No; 1.2% is below 3%.
- B. Yes; any nonzero error rate triggers this rule.
- C. Yes; conversion is above 10%.
- D. The guardrail applies only after fourteen days.

[Answers and explanations, page 134](#)

B Vocabulary in use

CORE TERMS

A/B test

A randomized comparison between defined alternatives.

run an A/B test

treatment arm

The group receiving the changed experience.

monitor the treatment arm

unit of randomization

The entity assigned to an experiment group, such as a user.

define the unit of randomization

exposure event

The recorded event indicating encounter with the tested experience.

validate the exposure event

guardrail

A predefined boundary protecting against unacceptable effects.

monitor the guardrail

sequential testing

A statistical approach designed for valid repeated decision opportunities.

use an approved sequential method

control arm

The experiment group receiving the reference experience.

define the control arm

random assignment

Allocation to groups by a defined random process.

verify random assignment

eligibility rule

A condition determining which entities enter the test or analysis.

apply eligibility rules

primary metric

The main preselected measure for the experiment decision.

specify the primary metric

fixed-horizon test

A test analyzed under a preplanned endpoint rather than opportunistic stopping.

follow the fixed-horizon plan

stopping rule

A predefined condition for ending or pausing an experiment.

follow the stopping rule

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

A/B test A/B TEST

run an A/B test

Keep the meaning precise: A randomized comparison between defined alternatives.

eligibility rule ELIGIBILITY RULE

apply eligibility rules

Keep the meaning precise: A condition determining which entities enter the test or analysis.

B Precision and professional shorthand

EXTEND YOUR RANGE

minimum sample

The smallest planned analysis population on the stated basis.

reach the minimum sample

statistical power

The probability of detecting a specified effect under the test assumptions.

assess statistical power

p-value

A probability under the null model of results at least as extreme as observed.

interpret the p-value carefully

multiple testing

Conducting more than one statistical comparison or decision opportunity.

account for multiple testing

novelty effect

A temporary response associated with encountering something new.

assess novelty effects

interim result

A result observed before the planned final decision point.

qualify interim results

minimum detectable effect

The effect size a planned test is designed to detect at stated power.

specify the minimum detectable effect

confidence interval

An interval produced by a method with stated coverage properties.

report a confidence interval

false positive

An erroneous rejection of a true null hypothesis under the stated test.

control false-positive risk

sample ratio mismatch

A difference from expected group allocation large enough to flag a validity concern.

investigate sample ratio mismatch

day-of-week effect

Variation associated with the weekday composition of observations.

examine day-of-week effects

practical significance

The operational importance of an effect, separate from statistical evidence.

assess practical significance

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

stopping rule STOPPING RULE

follow the stopping rule

Keep the meaning precise: A predefined condition for ending or pausing an experiment.

p-value P-VALUE

interpret the p-value carefully

Keep the meaning precise: A probability under the null model of results at least as extreme as observed.

Phrases that move the work forward

Give the counts

A has 100 conversions and B has 120, each from 1,000 users.

Separate effect expressions

The difference is two percentage points, or 20% relative.

Recall the plan

Final analysis requires fourteen days and the planned sample.

Reject a premature headline

B is ahead in the observed data, not yet a final winner.

Preserve monitoring

Continue checking guardrails and data quality throughout.

Distinguish decisions

A harm-based pause is different from declaring success.

Avoid invented certainty

The counts alone do not supply a final significance conclusion.

State the next readout

Report the interim figures with the remaining evidence requirements.

State the rates

The observed rates are 10% and 12%.

Qualify maturity

This is a day-one result.

Keep both prerequisites

The minimum is 10,000 eligible users per arm.

Avoid opportunistic stopping

We have no approved early-success rule.

Apply the actual threshold

The current 1.2% error rate is below the 3% guardrail.

Ask about validity

Have allocation and event checks identified a problem?

Consider representativeness

One day may not reflect the planned weekday mix.

Close the decision

Keep the final rollout decision pending the agreed analysis.

Precision in real exchanges

Purpose: Qualify maturity

Useful wording: This is a day-one result.

Purpose: Recall the plan

Useful wording: Final analysis requires fourteen days and the planned sample.

D Choose the response that fits

Choose one response for each situation. Preserve the facts, the decision boundary, and the purpose of the exchange.

1. Which update is justified?

- A.** The 20% relative difference proves every user segment benefits.
- B.** The experiment can ignore all guardrails until day fourteen.
- C.** B leads descriptively on day one; the planned final-analysis requirements are unmet.
- D.** B is the final winner because 120 exceeds 100.

2. What is the relative increase from 10% to 12%?

- A.** 2%
- B.** 12%
- C.** 120%
- D.** 20%

3. A colleague needs the term for this meaning: Allocation to groups by a defined random process. Which term fits?

- A.** novelty effect
- B.** random assignment
- C.** statistical power
- D.** guardrail

D Choose the response that fits / continued

4. Rebuild the exchange from "A day-one lead is not a final winner". Jules: "The plan calls for fourteen days and at least ten thousand eligible users per arm. We are short of both requirements after the first day." Priya: [missing response] Jules: "What if B is still ahead tomorrow and we call it then? I want to avoid waiting unnecessarily, but would that change the analysis?" Which response belongs in the gap?

- A.** Correct. Sequential testing could support different success rules if properly planned, but it is not the method approved here. Guardrail monitoring is still part of this plan.
- B.** Correct, and keep the control arm clear. Those expressions describe the observed difference; neither one supplies a final significance conclusion or a guarantee of rollout benefit.
- C.** This is a fixed-horizon test. We should not redefine its success decision because today's numbers look attractive, especially when no alternative early-success method has been approved.
- D.** Assess practical significance alongside the planned statistical evidence and guardrails. A decision needs the relevant magnitude, uncertainty, and consequences rather than a single attractive percentage.

[Answers and explanations, page 134](#)

One useful distinction

The observed difference is 2 percentage points, or a 20% relative increase from the 10% control rate. These are descriptive day-one figures. No final significance conclusion is supplied, and the pre-agreed time and sample requirements are not met.

E Conversation

A day-one lead is not a final winner

A day-one lead is not a final winner

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

interim result / guardrail / practical significance / fixed-horizon test / stopping rule / control arm / Sequential testing / sample ratio mismatch / minimum sample / novelty effect

- 01 **Jules:** B has one hundred twenty conversions and A has one hundred, with one thousand eligible users in each group. Can we announce a winner before the weekly product review?
- 02 **Priya:** Call it an ¹ _____. B is ahead in the day-one data, but the final-analysis requirements in our plan have not been met.
- 03 **Jules:** The observed rates are twelve percent and ten percent. I can describe that as a two-percentage-point difference, or twenty percent relative to the control rate.
- 04 **Priya:** Correct, and keep the ² _____ clear. Those expressions describe the observed difference; neither one supplies a final significance conclusion or a guarantee of rollout benefit.
- 05 **Jules:** The plan calls for fourteen days and at least ten thousand eligible users per arm. We are short of both requirements after the first day.
- 06 **Priya:** This is a ³ _____. We should not redefine its success decision because today's numbers look attractive, especially when no alternative early-success method has been approved.

E Conversation / continued

- 07 **Jules:** What if B is still ahead tomorrow and we call it then? I want to avoid waiting unnecessarily, but would that change the analysis?
- 08 **Priya:** That changes the ⁴ _____. Repeated opportunities to declare success need an appropriate statistical method, not an improvised rule added after seeing the data.
- 09 **Jules:** I understand that success stopping needs discipline. But we should still watch for a poor experience while the test runs, rather than wait until the final day.
- 10 **Priya:** Absolutely. The ⁵ _____ stays active. Our defined error rule pauses an arm above three percent; B is currently at one point two percent, so it has not breached that threshold.

Conversation continues on the next page.

A day-one lead is not a final winner

CONVERSATION / CONTINUED

- 11 **Jules:** If that error rate later crosses the threshold, we follow the pause and investigation process. The fixed horizon does not require us to ignore that change.
- 12 **Priya:** Correct. ⁶ _____ could support different success rules if properly planned, but it is not the method approved here. Guardrail monitoring is still part of this plan.
- 13 **Jules:** Who is watching assignment and event quality while it runs? I do not want us discussing a conversion gain that turns out to be a logging problem.
- 14 **Priya:** Yes. Investigate a ⁷ _____ if one is flagged, alongside the relevant event checks. The current checks are clear so far, which is a status rather than a permanent guarantee.
- 15 **Jules:** One day also gives us only a narrow time slice. Different weekday behavior or a temporary reaction to the new experience could affect what we see.
- 16 **Priya:** A ⁸ _____ is one possible concern. Do not claim it explains this result, but do not assume the first day's response represents the full planned period either.
- 17 **Jules:** At the final readout, we will still need to understand whether the effect matters enough to justify rollout, not only whether the analysis meets its statistical decision rule.
- 18 **Priya:** Assess ⁹ _____ alongside the planned statistical evidence and guardrails. A decision needs the relevant magnitude, uncertainty, and consequences rather than a single attractive percentage.
- 19 **Jules:** My update will give the counts and observed lead, note the remaining time and sample requirements, and keep the rollout decision pending while monitoring continues.
- 20 **Priya:** That respects the ¹⁰ _____ and the approved method. We can communicate useful progress without turning the first readout into a conclusion the experiment has not yet earned.

CHECK THE GAPS

1. interim result / 2. control arm / 3. fixed-horizon test / 4. stopping rule / 5. guardrail / 6. Sequential testing / 7. sample ratio mismatch / 8. novelty effect / 9. practical significance / 10. minimum sample

[Why these answers fit, page 136](#)

F Check accuracy and scope

A day-one lead is not a final winner

Return to the case

Product manager Jules and experimentation analyst Priya review day one of a randomized test. Control A has 100 conversions from 1,000 eligible users; variant B has 120 from 1,000. The pre-agreed fixed-horizon plan requires 14 days and at least 10,000 eligible users per arm before the final analysis. No sequential early-success rule is approved. The safety guardrail pauses an arm if its defined error rate exceeds 3%; current B errors are 1.2%. Data-quality checks are clear so far. Jules wants to announce B as the winner.

Choose one answer per question. Use the case facts and keep any uncertainty or limits intact.

1. What should happen if the defined guardrail is later exceeded?

- A. Follow the pre-agreed pause and investigation rule.
- B. Keep running regardless because the horizon is fixed.
- C. Declare B the winner to avoid recording the problem.
- D. Remove the error metric after seeing it worsen.

2. Why not stop for success simply because B leads today?

- A. A randomized test can never have interim monitoring.
- B. Every day-one difference is necessarily false.
- C. Fourteen days guarantees statistical significance for every sample.
- D. The fixed-horizon plan has no approved early-success method.

[Answers and explanations, page 137](#)

Listen for the distinction

Switch roles for turns 11-20. Stress that guardrail monitoring continues.

Do not rewrite the finish line after seeing the score

Interim data can support monitoring and investigation without establishing a final decision. State the planned analysis method and the difference between an early-success claim and a guardrail response. Waiting for planned evidence must never be confused with ignoring harm or a data-quality failure.

F Say it / transfer to a new case

The arithmetic is not the decision rule

On day two of a fixed-horizon test, A converts 40 of 500 users and B converts 50 of 500. The final time and sample requirements are unmet, and no early-success rule is approved.

Complete the four gaps. With a partner, read alternate roles, then switch. Studying alone, read both roles and pause before each response.

WORD AND PHRASE BANK

8 / 25 / 10 / undecided

- 01 **Analyst:** A converts ¹ _____ percent.
- 02 **Product:** B converts ² _____ percent.
- 03 **Analyst:** The relative increase is ³ _____ percent.
- 04 **Product:** The final winner remains ⁴ _____.

CHECK THE GAPS

1. 8 / 2. 10 / 3. 25 / 4. undecided

[Why these answers fit, page 137](#)

Rebuild the exchange

Choose the missing response. Read the completed three-turn exchange aloud, changing roles on the second reading.

1. Rebuild the exchange from "A day-one lead is not a final winner". Jules: "Who is watching assignment and event quality while it runs? I do not want us discussing a conversion gain that turns out to be a logging problem." Priya: [missing response] Jules: "One day also gives us only a narrow time slice. Different weekday behavior or a temporary reaction to the new experience could affect what we see." Which response belongs in the gap?

- A.** Yes. Investigate a sample ratio mismatch if one is flagged, alongside the relevant event checks. The current checks are clear so far, which is a status rather than a permanent guarantee.
- B.** That respects the minimum sample and the approved method. We can communicate useful progress without turning the first readout into a conclusion the experiment has not yet earned.
- C.** Absolutely. The guardrail stays active. Our defined error rule pauses an arm above three percent; B is currently at one point two percent, so it has not breached that threshold.
- D.** A novelty effect is one possible concern. Do not claim it explains this result, but do not assume the first day's response represents the full planned period either.

[Answers and explanations, page 138](#)

A Read the situation

LESSON 06 / RELEASE READINESS AND GO-TO-MARKET

Coordinate a release review by naming the missing operational prerequisite, its owner, and the distinction between review and launch approval.

The software is ready; the support handoff is not

Release manager Ana and product marketer Rob prepare a Friday 10 a.m. launch review for a workspace-permissions update. Engineering checks are complete and the rollback rehearsal passed. The local launch checklist also requires migration notes delivered to Support and confirmed usable by its lead. Those notes have not been delivered. Ana can assign delivery for Thursday 3 p.m. and request Support review, but no waiver or launch approval exists. Rob wants to send the customer announcement now.

People: Ana, Release manager; Rob, Product marketer.

Read the record

Choose one answer per question using the facts above.

1. Which readiness item is missing?

- A. Engineering checks
- B. A successful rollback rehearsal
- C. A scheduled Friday review
- D. Migration notes delivered to Support and confirmed usable

2. What does Friday 10 a.m. represent?

- A. A waiver deadline that automatically removes the checklist item
- B. The planned launch review
- C. An already approved launch
- D. A guaranteed completed migration for all customers

3. What can Ana do now?

- A. Assign note delivery and request Support review.
- B. Declare a waiver without authority.
- C. Treat an undelivered document as accepted.
- D. Announce approval that does not exist.

[Answers and explanations, page 139](#)

B Vocabulary in use

CORE TERMS

release readiness

The state of meeting requirements for a defined release decision.

assess release readiness

launch checklist

The required items reviewed before a launch decision.

complete the launch checklist

release notes

A summary of changes in a defined release.

publish release notes

known issue

A documented problem with a stated status and impact.

disclose known issues

rollback

Returning to a prior state under a defined recovery procedure.

rehearse rollback

feature flag

A control enabling or disabling a capability for defined conditions or users.

configure a feature flag

go-to-market

Coordinated work to bring a product or change to its intended audience.

align the go-to-market plan

migration notes

Guidance explaining how users or teams move to a changed version or behavior.

deliver migration notes

support enablement

Preparing support staff to assist users of the change.

complete support enablement

workaround

A defined alternative route around a known limitation.

document the workaround

rollout

Making a change available to a defined population.

stage the rollout

go/no-go decision

A formal decision about whether a planned release proceeds.

record the go/no-go decision

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

release readiness **RELEASE READINESS**

assess release readiness

Keep the meaning precise: The state of meeting requirements for a defined release decision.

support enablement **SUPPORT ENABLEMENT**

complete support enablement

Keep the meaning precise: Preparing support staff to assist users of the change.

B Precision and professional shorthand

EXTEND YOUR RANGE

launch gate

A required condition before proceeding to a launch stage.

satisfy the launch gate

runbook

Documented instructions for a defined operational process.

update the runbook

customer announcement

Communication informing customers about a change or availability.

approve the customer announcement

dependency owner

The person accountable for a required input.

name the dependency owner

acceptance confirmation

A recipient's recorded acknowledgment that an input meets the agreed need.

obtain acceptance confirmation

launch hold

A restriction preventing the launch from proceeding.

communicate a launch hold

operational readiness

Preparedness of the people and processes supporting live operation.

verify operational readiness

escalation path

The route for obtaining higher-level help or authority.

confirm the escalation path

release owner

The role coordinating or accountable for the release under local rules.

identify the release owner

readiness evidence

Records showing that a required release condition has been met.

attach readiness evidence

contingency

A planned response if an expected condition is not met.

agree the contingency

post-launch monitoring

Observation of defined product and operational signals after release.

plan post-launch monitoring

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

go/no-go decision **GO/NO-GO DECISION**

record the go/no-go decision

Keep the meaning precise: A formal decision about whether a planned release proceeds.

customer announcement **CUSTOMER ANNOUNCEMENT**

approve the customer announcement

Keep the meaning precise: Communication informing customers about a change or availability.

C Phrases that move the work forward

Acknowledge completed work

Engineering checks are complete and rollback was rehearsed.

Quote the actual gate

The notes must be delivered and confirmed usable.

Assign the input

Name the owner for Thursday's note delivery.

Avoid a false handoff

Sent does not automatically mean accepted.

Qualify the launch

Launch approval is still pending.

Clarify the content

The notes need the changed permission behavior and support route.

Define the contingency

State what happens if the required confirmation is missing.

Coordinate messages

Give Marketing and Support the same status.

Name the open item

Support has not received the required migration notes.

Separate team readiness

Code readiness is not the whole launch checklist.

Request recipient review

Ask the Support lead to confirm usability.

Keep the review

Friday's go/no-go review can remain scheduled.

Hold the announcement

Do not announce availability before the release decision.

Keep authority clear

No waiver has been approved.

Preserve the evidence

Attach Support's confirmation to the readiness record.

Close the review request

Bring completed evidence and remaining blockers to the decision owner.

Precision in real exchanges

Purpose: Separate team readiness

Useful wording: Code readiness is not the whole launch checklist.

Purpose: Assign the input

Useful wording: Name the owner for Thursday's note delivery.

D Choose the response that fits

Choose one response for each situation. Preserve the facts, the decision boundary, and the purpose of the exchange.

1. Which readiness statement is accurate?

- A.** Friday's meeting automatically grants permission to announce.
- B.** Engineering is ready; the required Support handoff remains incomplete.
- C.** The whole launch is approved because rollback passed.
- D.** Support's missing notes are complete because someone intends to send them.

2. What evidence closes the stated Support item?

- A.** Only a draft stored where Support cannot access it
- B.** Only a passed code test unrelated to migration guidance
- C.** Delivery of the notes and the Support lead's usability confirmation
- D.** Only a promise that a document will exist

3. A colleague needs the term for this meaning: Guidance explaining how users or teams move to a changed version or behavior. Which term fits?

- A.** rollback
- B.** migration notes
- C.** acceptance confirmation
- D.** runbook

D Choose the response that fits / continued

4. Rebuild the exchange from "The software is ready; the support handoff is not".

Rob: "Can we set Thursday at three as the delivery deadline and ask the Support lead to review the material before the Friday meeting?" Ana: [missing response]

Rob: "I will coordinate with the author and make sure Support can access the current document. A draft in a private folder would not meet the requirement." Which response belongs in the gap?

- A.** We can assign a dependency owner and that deadline. We should also confirm who performs the recipient review so delivery does not become an unowned handoff.
- B.** We need acceptance confirmation. Sent and accepted are different states here, and the readiness record should preserve both rather than assume silence means the document is sufficient.
- C.** Yes. Support enablement is part of this launch. The team needs to explain the changed permissions and route questions, not merely know that a new version exists.
- D.** Correct. The migration notes need to reach the people using them. Their content should address the change and support route, not just repeat the marketing headline.

[Answers and explanations, page 139](#)

One useful distinction

Engineering completion and a passed rollback rehearsal are positive readiness facts. They do not satisfy the separate Support requirement. The checklist calls for both delivery and confirmation that the notes are usable; a sent attachment alone would not necessarily close it.

E Conversation

The software is ready; the support handoff is not

The software is ready; the support handoff is not

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

dependency owner / operational readiness / migration notes / customer announcement / readiness evidence / contingency / acceptance confirmation / Support enablement / go/no-go decision / launch checklist

- 01 **Rob:** Engineering says the workspace-permissions update is ready, and the rollback rehearsal passed. I would like to send the customer announcement before Friday's review so the campaign can start.
- 02 **Ana:** The ¹ _____ still has an open item. Support has not received the migration notes, and the local requirement also calls for its lead to confirm that they are usable.
- 03 **Rob:** I had treated the notes as a follow-up document rather than part of the release decision. The checklist makes that dependency explicit, so we need to close it.
- 04 **Ana:** Yes. ² _____ is part of this launch. The team needs to explain the changed permissions and route questions, not merely know that a new version exists.
- 05 **Rob:** Can we set Thursday at three as the delivery deadline and ask the Support lead to review the material before the Friday meeting?
- 06 **Ana:** We can assign a ³ _____ and that deadline. We should also confirm who performs the recipient review so delivery does not become an unowned handoff.

Conversation / continued

- 07 **Rob:** I will coordinate with the author and make sure Support can access the current document. A draft in a private folder would not meet the requirement.
- 08 **Ana:** Correct. The ⁴ _____ need to reach the people using them. Their content should address the change and support route, not just repeat the marketing headline.
- 09 **Rob:** I can show that we sent a file. Are you saying I also need the Support lead to confirm that it answers the migration questions?
- 10 **Ana:** We need ⁵ _____. Sent and accepted are different states here, and the readiness record should preserve both rather than assume silence means the document is sufficient.

Conversation continues on the next page.

The software is ready; the support handoff is not

CONVERSATION / CONTINUED

- 11 **Rob:** We can keep Friday's ten o'clock meeting scheduled while those actions proceed. But the invitation should not be read as proof that the launch has already been approved.
- 12 **Ana:** Exactly. It is a ⁶ _____ review. The decision depends on the required evidence and any open items, not on the fact that everyone has accepted the calendar invitation.
- 13 **Rob:** I will prepare the announcement but keep it unsent. Please flag the release decision; I should not infer it from the meeting invitation.
- 14 **Ana:** Keep the ⁷ _____ aligned with the decision. We can prepare coordinated messages now without telling customers a pending change is already approved or available.
- 15 **Rob:** If the notes arrive late or Support finds gaps, we need an explicit response. Otherwise people may assume the engineering result overrides the unfinished handoff.
- 16 **Ana:** Agree the ⁸ _____ with the release owner. The unresolved gate must be presented honestly; no waiver is recorded, and we should not invent one to preserve a preferred date.
- 17 **Rob:** I will ask the Support lead to identify any missing explanation promptly. The author can then address it and bring the final confirmation to the review.
- 18 **Ana:** Attach that ⁹ _____ to the release record. It should show what was delivered and accepted, not merely that an action was assigned to someone.

The software is ready; the support handoff is not / continued

- 19 **Rob:** Our status can now acknowledge the completed engineering checks while naming the remaining operational work. Marketing, Engineering, and Support will use the same wording.
- 20 **Ana:** That gives an accurate ¹⁰ _____ picture. We can keep preparing for the launch while leaving its approval with the responsible review and the evidence it requires.

CHECK THE GAPS

1. launch checklist / 2. Support enablement / 3. dependency owner / 4. migration notes / 5. acceptance confirmation / 6. go/no-go decision / 7. customer announcement / 8. contingency / 9. readiness evidence / 10. operational readiness

[Why these answers fit, page 140](#)

F Check accuracy and scope

The software is ready; the support handoff is not

Return to the case

Release manager Ana and product marketer Rob prepare a Friday 10 a.m. launch review for a workspace-permissions update. Engineering checks are complete and the rollback rehearsal passed. The local launch checklist also requires migration notes delivered to Support and confirmed usable by its lead. Those notes have not been delivered. Ana can assign delivery for Thursday 3 p.m. and request Support review, but no waiver or launch approval exists. Rob wants to send the customer announcement now.

Choose one answer per question. Use the case facts and keep any uncertainty or limits intact.

1. Which announcement decision fits the facts?

- A. Describe the missing notes as waived without authorization.
- B. Promise every customer a completed migration before review.
- C. Keep the customer availability announcement pending the release decision.
- D. Announce approval immediately because the review is scheduled.

2. What should happen if confirmation is still missing at the review?

- A. Mark the gate complete to protect the calendar.
- B. Assume silence from Support means acceptance.
- C. Remove the requirement after the meeting begins.
- D. Present the unresolved gate and follow the authorized go/no-go process.

[Answers and explanations, page 142](#)

Listen for the distinction

Switch roles for turns 11-20. Stress review, approval, and announcement as separate events.

Treat the handoff as part of readiness

Customer-facing teams need the information required to handle the change, not merely proof that engineering finished coding. Name what is missing and how it will be checked. A planned review can stay on the calendar while the launch decision remains conditional.

F Say it / transfer to a new case

A sent file is only half the gate

The checklist requires a migration guide delivered to Support and confirmed usable by its lead. Delivery is recorded, but confirmation is absent. The launch review is tomorrow; no approval is recorded.

Complete the four gaps. With a partner, read alternate roles, then switch. Studying alone, read both roles and pause before each response.

WORD AND PHRASE BANK

delivery / review / approval / confirmation

- 01 **Release:** The guide reached Support, so we can record ¹ _____.
- 02 **Support:** You still need my usability ² _____ before closing that item.
- 03 **Release:** We will take the open item to the launch ³ _____ tomorrow.
- 04 **Marketing:** I will keep the availability announcement unsent until we have launch ⁴ _____.

CHECK THE GAPS

1. delivery / 2. confirmation / 3. review / 4. approval

[Why these answers fit, page 142](#)

F Say it / transfer to a new case / continued

Rebuild the exchange

Choose the missing response. Read the completed three-turn exchange aloud, changing roles on the second reading.

1. Rebuild the exchange from "The software is ready; the support handoff is not". Rob: "I will prepare the announcement but keep it unsent. Please flag the release decision; I should not infer it from the meeting invitation." Ana: [missing response] Rob: "If the notes arrive late or Support finds gaps, we need an explicit response. Otherwise people may assume the engineering result overrides the unfinished handoff." Which response belongs in the gap?

- A.** Correct. The migration notes need to reach the people using them. Their content should address the change and support route, not just repeat the marketing headline.
- B.** We can assign a dependency owner and that deadline. We should also confirm who performs the recipient review so delivery does not become an unowned handoff.
- C.** Keep the customer announcement aligned with the decision. We can prepare coordinated messages now without telling customers a pending change is already approved or available.
- D.** Attach that readiness evidence to the release record. It should show what was delivered and accepted, not merely that an action was assigned to someone.

[Answers and explanations, page 143](#)

Review 3 / Meaning and context

Use language from the lessons you have completed. Choose one answer per question.

Case file

Revisit "Experimentation and A/B Testing" and "Release Readiness and Go-to-Market". Choose precise terminology, then reconstruct the missing responses using both neighboring turns. The final two questions also revisit earlier conversations.

1. A colleague needs the term for this meaning: The group receiving the changed experience. Which term fits?

- A. sample ratio mismatch
- B. primary metric
- C. minimum detectable effect
- D. treatment arm

2. A colleague needs the term for this meaning: A defined alternative route around a known limitation. Which term fits?

- A. launch gate
- B. dependency owner
- C. workaround
- D. release readiness

3. Rebuild the exchange from "More signups, fewer completed setups". Alex: "I have sixteen point six seven percent in my slide. That is the fall in completed setups, not the change in conversion rate. I need separate labels." Imani: [missing response] Alex: "Could the campaign have attracted people who were less ready to configure the product? That seems plausible, but we have not examined the composition of the new signups." Which response belongs in the gap?

- A. Correct. Keep the denominator with each rate. The earlier rate is six hundred divided by one thousand, while the later is five hundred divided by fifteen hundred.
- B. The funnel shows a mixed result. Completed setups fell from six hundred to five hundred, even though more people entered at the signup stage.
- C. Use segmentation with a clear purpose and consistent definitions. It can reveal where the problem is concentrated without pretending that every descriptive split proves causality.
- D. Exactly. State setup completion in both forms when needed: five hundred completions and roughly thirty-three percent of signups. Neither should disappear behind the favorable acquisition headline.

Review 3 / Meaning and context / continued

4. Rebuild the exchange from "The software is ready; the support handoff is not".
Rob: "I will ask the Support lead to identify any missing explanation promptly. The author can then address it and bring the final confirmation to the review." Ana: [missing response] Rob: "Our status can now acknowledge the completed engineering checks while naming the remaining operational work. Marketing, Engineering, and Support will use the same wording." Which response belongs in the gap?

- A.** We can assign a dependency owner and that deadline. We should also confirm who performs the recipient review so delivery does not become an unowned handoff.
- B.** Attach that readiness evidence to the release record. It should show what was delivered and accepted, not merely that an action was assigned to someone.
- C.** Correct. The migration notes need to reach the people using them. Their content should address the change and support route, not just repeat the marketing headline.
- D.** Keep the customer announcement aligned with the decision. We can prepare coordinated messages now without telling customers a pending change is already approved or available.

[Answers and explanations, page 160](#)

A Read the situation

LESSON 07 / PLATFORM, APIS, AND TECHNICAL DEBT

Explain a short-term delivery option and its maintenance consequences without hiding compatibility, ownership, or retirement requirements.

A three-day adapter or a ten-day interface

Product manager Camille and engineering lead Dev assess a customer request due in five working days. A client-specific adapter is estimated at three days including tests and could support a single-client pilot. A shared API change is estimated at ten days including tests. The adapter duplicates an existing transformation and needs named ownership, monitoring, rollback, and an approved 30-day expiry or extension process. Existing clients must retain their current behavior. Neither option is approved, and no engineering capacity beyond the estimates is confirmed.

People: Camille, Product manager; Dev, Engineering lead.

Read the record

Choose one answer per question using the facts above.

1. Which estimate fits inside the requested five-day window?

- A. Both estimates equally
- B. Neither can be compared with five days
- C. The three-day adapter estimate
- D. The ten-day shared API estimate

2. What does the adapter duplicate?

- A. A confirmed ten-day capacity allocation
- B. An existing transformation
- C. The entire customer company
- D. A completed approval record

3. Which constraint applies to existing clients?

- A. They must all join the pilot automatically.
- B. They can be broken without notice because the request is urgent.
- C. Their behavior is irrelevant to the shared interface.
- D. Their current behavior must be preserved.

[Answers and explanations, page 144](#)

B Vocabulary in use

CORE TERMS

platform capability

A shared function supporting multiple products or consumers.

invest in platform capability

API contract

The agreed inputs, outputs, and behavior of an interface.

preserve the API contract

request schema

The defined structure and meaning of incoming data.

validate the request schema

backward compatibility

Continued support for existing consumers under the stated contract.

maintain backward compatibility

versioning

Identifying and managing distinct interface or product versions.

plan API versioning

migration path

The supported route from an old interface or behavior to a new one.

provide a migration path

API

Application programming interface, a defined way for software components to interact.

define the API contract

endpoint

An addressable operation or resource in an interface.

document the endpoint

response schema

The defined structure and meaning of returned data.

preserve the response schema

breaking change

A change that can invalidate existing consumers' expectations.

identify a breaking change

deprecation

Notice that a capability is discouraged and may be retired under a defined plan.

communicate deprecation

adapter

A component translating between interfaces or data forms.

scope the adapter

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

platform capability PLATFORM CAPABILITY

invest in platform capability

Keep the meaning precise: A shared function supporting multiple products or consumers.

response schema RESPONSE SCHEMA

preserve the response schema

Keep the meaning precise: The defined structure and meaning of returned data.

B Precision and professional shorthand

EXTEND YOUR RANGE

client-specific logic

Behavior implemented for a particular consumer.
isolate client-specific logic

technical debt

Additional future work caused by expedient or inadequate design or implementation.
make technical debt explicit

ownership

Clear responsibility for a component or decision.
assign ownership

rollback plan

The defined way to reverse a change if necessary.
test the rollback plan

retirement plan

The agreed work and timing for removing an old or temporary path.
fund the retirement plan

blast radius

The scope of users or systems affected by a change or failure.
limit the blast radius

duplicated logic

The same rule or transformation maintained in multiple places.
track duplicated logic

maintenance burden

The effort and risk involved in keeping a solution working.
estimate the maintenance burden

observability

The ability to understand a system through its exposed signals.
provide observability

expiry condition

A rule stating when a temporary option ends unless explicitly extended.
set the expiry condition

extension decision

A recorded decision to continue beyond an original limit.
require an extension decision

service-level objective

A defined target for a service measure, abbreviated SLO.
agree a service-level objective

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

adapter **ADAPTER**

scope the adapter

Keep the meaning precise: A component translating between interfaces or data forms.

ownership **OWNERSHIP**

assign ownership

Keep the meaning precise: Clear responsibility for a component or decision.

Phrases that move the work forward

Set out the options

The adapter is estimated at three days; the shared API work at ten.

Name the short-term scope

The adapter would serve one client's pilot.

Translate the debt

Both copies would need to stay consistent until retirement.

Ask about the contract

Would this change alter an existing response or behavior?

Assign maintenance

Who owns the adapter after the first delivery?

Plan reversal

The pilot needs a tested rollback plan.

Avoid silent permanence

A missed retirement date requires a decision, not an assumption.

Keep approval visible

Neither approach is approved yet.

Qualify the estimate

Both estimates include tests but are not delivery approvals.

Expose the duplication

It repeats an existing transformation.

Protect existing clients

Their current behavior must remain supported.

Limit exposure

Keep the pilot's blast radius explicit.

Require monitoring

Which signals show that the temporary path is working?

Set the limit

The proposed adapter expires after thirty days unless explicitly extended.

Compare honestly

The durable option needs a longer delivery window.

Close the proposal

Present timing, scope, compatibility, ownership, and retirement together.

Precision in real exchanges

Purpose: Expose the duplication

Useful wording: It repeats an existing transformation.

Purpose: Translate the debt

Useful wording: Both copies would need to stay consistent until retirement.

D Choose the response that fits

Choose one response for each situation. Preserve the facts, the decision boundary, and the purpose of the exchange.

1. Which proposal accurately describes the adapter?

- A.** A cost-free change with no future maintenance
- B.** A ten-day implementation guaranteed within five days
- C.** A three-day estimated single-client pilot with required ownership, monitoring, rollback, and expiry controls
- D.** A permanent shared interface already approved for every client

2. Why does duplicated transformation logic matter?

- A.** Duplication automatically proves every request is unsafe.
- B.** A temporary label removes maintenance work.
- C.** Existing clients no longer depend on their contract.
- D.** Future changes may require both copies to stay consistent.

3. A colleague needs the term for this meaning: An addressable operation or resource in an interface. Which term fits?

- A.** versioning
- B.** technical debt
- C.** endpoint
- D.** retirement plan

D Choose the response that fits / continued

4. Rebuild the exchange from "A three-day adapter or a ten-day interface". Camille: "Then technical debt should be described as that future consistency work and the responsibility to retire the temporary path, not simply as engineers disliking a quick solution." Dev: [missing response] Camille: "The shared option also needs to preserve existing clients. We cannot change what they receive merely because the new customer has a different need." Which response belongs in the gap?

- A.** Exactly. Maintenance burden makes the consequence concrete. We can choose a bounded shortcut deliberately, but we should not present it as having no ongoing owner or cost.
- B.** Review the API contract. Existing behavior must remain supported. Keeping the same endpoint name would not be enough if we changed the meaning of a field or response.
- C.** The adapter could fit the requested window as a single-client pilot. That is an option to assess, not an approved delivery commitment or a solution for every consumer.
- D.** A breaking change can be behavioral, not just structural. We need to assess the actual consumers and contract rather than promise compatibility from a superficial comparison.

[Answers and explanations, page 144](#)

One useful distinction

The three-day estimate fits the five-day request numerically; it is not yet an approved commitment. Its scope is a single-client pilot. The ten-day shared API option exceeds the requested window, so the team must change scope, timing, or the decision rather than hide the difference.

E Conversation

A three-day adapter or a ten-day interface

A three-day adapter or a ten-day interface

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

blast radius / ownership / API contract / breaking change / retirement plan /
Maintenance burden / expiry condition / rollback plan / adapter / duplicated logic

- 01 **Camille:** The customer needs a response within five working days. We have a three-day adapter estimate and ten days for shared API work, both including tests. What can we responsibly offer?
- 02 **Dev:** The ¹ _____ could fit the requested window as a single-client pilot. That is an option to assess, not an approved delivery commitment or a solution for every consumer.
- 03 **Camille:** I want to explain why the quicker path has a cost beyond those three days. The estimate says it repeats a transformation we already maintain elsewhere.
- 04 **Dev:** That creates ² _____. If the rule changes, both paths need to stay consistent until the adapter is removed. The customer-specific route cannot become invisible once the pilot starts.
- 05 **Camille:** Then technical debt should be described as that future consistency work and the responsibility to retire the temporary path, not simply as engineers disliking a quick solution.
- 06 **Dev:** Exactly. ³ _____ makes the consequence concrete. We can choose a bounded shortcut deliberately, but we should not present it as having no ongoing owner or cost.

E Conversation / continued

- 07 **Camille:** The shared option also needs to preserve existing clients. We cannot change what they receive merely because the new customer has a different need.
- 08 **Dev:** Review the ⁴ _____. Existing behavior must remain supported. Keeping the same endpoint name would not be enough if we changed the meaning of a field or response.
- 09 **Camille:** We should distinguish a new optional capability from a change that older clients cannot handle. That will help me explain the engineering review in product terms.
- 10 **Dev:** A ⁵ _____ can be behavioral, not just structural. We need to assess the actual consumers and contract rather than promise compatibility from a superficial comparison.

Conversation continues on the next page.

A three-day adapter or a ten-day interface

CONVERSATION / CONTINUED

- 11 **Camille:** One client sounds contained, but can another client hit that path accidentally? I need to understand the boundary and how we will detect a problem.
- 12 **Dev:** Define the ⁶ _____ and the relevant monitoring. Narrow scope is useful only if the implementation and controls actually preserve that boundary.
- 13 **Camille:** Who will support it after delivery? I do not want the team to assume the first implementer will maintain it indefinitely without agreed capacity.
- 14 **Dev:** Assign ⁷ _____ before approval. The proposal must identify who watches the signals, handles issues, and keeps the temporary transformation consistent with the existing one.
- 15 **Camille:** If we switch it off, what happens to that customer? Can we test the return path before offering the pilot, rather than work it out during an incident?
- 16 **Dev:** Include a tested ⁸ _____. The decision needs a practical recovery route, not just confidence that the change is small.
- 17 **Camille:** We proposed a thirty-day limit. At that point the adapter should expire or receive an explicit extension under an approved process, not remain by accident.
- 18 **Dev:** Make that ⁹ _____ part of the proposal. Temporary is only useful language if the end condition has an owner and a decision route.
- 19 **Camille:** I will present the options with the timing difference, the single-client limit, compatibility requirements, and ongoing work. Neither will be described as approved until the relevant review is complete.
- 20 **Dev:** Include the ¹⁰ _____ alongside the estimates. Then the team can decide whether the bounded pilot is worthwhile or whether the customer timeline should move for the shared solution.

CHECK THE GAPS

1. adapter / 2. duplicated logic / 3. Maintenance burden / 4. API contract / 5. breaking change / 6. blast radius / 7. ownership / 8. rollback plan / 9. expiry condition / 10. retirement plan

[Why these answers fit, page 146](#)

F Check accuracy and scope

A three-day adapter or a ten-day interface

Return to the case

Product manager Camille and engineering lead Dev assess a customer request due in five working days. A client-specific adapter is estimated at three days including tests and could support a single-client pilot. A shared API change is estimated at ten days including tests. The adapter duplicates an existing transformation and needs named ownership, monitoring, rollback, and an approved 30-day expiry or extension process. Existing clients must retain their current behavior. Neither option is approved, and no engineering capacity beyond the estimates is confirmed.

Choose one answer per question. Use the case facts and keep any uncertainty or limits intact.

1. What is a compatibility question?

- A. Can the deadline be renamed to hide the estimate?
- B. Can all older users be assumed to migrate instantly?
- C. Will existing clients receive behavior they can still handle under the current contract?
- D. Does the slide call the work a platform investment?

2. What should happen at the 30-day limit?

- A. Declare the shared API work complete without doing it.
- B. Follow the approved expiry or explicit extension process.
- C. Let the adapter continue forever without ownership.
- D. Assume that temporary means no monitoring is needed.

[Answers and explanations, page 147](#)

Listen for the distinction

Switch roles for turns 11-20. Pause before ownership, rollback, and expiry conditions.

Translate debt into an owned consequence

Technical debt is not a synonym for bad code or an automatic reason to reject a short-term option. Describe what is duplicated, what must be maintained, and how the temporary path ends. A product decision can then weigh timing and consequences without pretending the shortcut is free.

F Say it / transfer to a new case

Temporary needs an ending

A single-client adapter is estimated at two days; shared interface work needs eight. The requested window is four days. The adapter requires an owner and expires after 21 days unless explicitly extended. Neither option is approved.

Complete the four gaps. With a partner, read alternate roles, then switch. Studying alone, read both roles and pause before each response.

WORD AND PHRASE BANK

approval / 21 / 2 / 8

- 01 **Product:** The adapter estimate is ¹ _____ days.
- 02 **Engineering:** The shared option needs ² _____ days.
- 03 **Product:** The adapter limit is ³ _____ days unless extended.
- 04 **Engineering:** Both options still need ⁴ _____.

CHECK THE GAPS

1. 2 / 2. 8 / 3. 21 / 4. approval

[Why these answers fit, page 147](#)

F Say it / transfer to a new case / continued

Rebuild the exchange

Choose the missing response. Read the completed three-turn exchange aloud, changing roles on the second reading.

1. Rebuild the exchange from "A three-day adapter or a ten-day interface". Camille: "Who will support it after delivery? I do not want the team to assume the first implementer will maintain it indefinitely without agreed capacity." Dev: [missing response] Camille: "If we switch it off, what happens to that customer? Can we test the return path before offering the pilot, rather than work it out during an incident?" Which response belongs in the gap?

- A.** Assign ownership before approval. The proposal must identify who watches the signals, handles issues, and keeps the temporary transformation consistent with the existing one.
- B.** Make that expiry condition part of the proposal. Temporary is only useful language if the end condition has an owner and a decision route.
- C.** A breaking change can be behavioral, not just structural. We need to assess the actual consumers and contract rather than promise compatibility from a superficial comparison.
- D.** Define the blast radius and the relevant monitoring. Narrow scope is useful only if the implementation and controls actually preserve that boundary.

[Answers and explanations, page 148](#)

A Read the situation

LESSON 08 / STAKEHOLDER PUSHBACK AND EXECUTIVE NARRATIVE

Present a concise recommendation tied to a shared objective while acknowledging evidence limits, displaced work, and decision authority.

Turn competing opinions into a decision request

Product lead Iris prepares a decision with executive chair Malik. The agreed quarterly objective is to reduce support friction for existing paid teams. Option A is a two-week reliability pilot addressing an error category present in 40 of 100 reviewed support tickets. Those tickets are not 40 distinct customers, and no retention effect is established. Option B is a sales dashboard requested for uncommitted prospects. Capacity allows only one pilot. The agreed criterion favors documented existing-customer friction; the chair makes the decision. Iris recommends A, with B deferred and results reviewed after two weeks.

People: Iris, Product lead; Malik, Executive decision chair.

Read the record

Choose one answer per question using the facts above.

1. What is the shared quarterly objective?

- A. Reduce support friction for existing paid teams
- B. Maximize every possible feature count
- C. Guarantee revenue from uncommitted prospects
- D. Prove a retention gain already occurred

2. What does 40 of 100 mean?

- A. Forty distinct customers are proven to have churned.
- B. Forty percent of all customers have the error.
- C. A forty-percent retention improvement is established.
- D. Forty reviewed tickets belong to the relevant error category.

3. Who makes the supplied decision?

- A. Every prospect automatically
- B. Whoever repeats a preference most often
- C. Malik, the executive chair
- D. Iris alone by sending a recommendation

[Answers and explanations, page 149](#)

B Vocabulary in use

CORE TERMS

executive narrative

A concise explanation connecting evidence, trade-offs, and a decision.

shape the executive narrative

shared objective

An agreed outcome used to align competing views.

confirm the shared objective

recommendation

A proposed course of action supported by reasons.

lead with the recommendation

customer friction

Difficulty users encounter while trying to achieve a task.

reduce customer friction

ticket category

A defined grouping of support records by issue type.

analyze the ticket category

retention effect

A change in continued use attributable to a specified intervention.

evaluate the retention effect

decision request

A specific choice or authorization sought from a decision maker.

state the decision request

decision criterion

A defined basis for evaluating alternatives.

agree the decision criterion

evidence strength

The degree of support the available information gives a claim.

qualify evidence strength

paid team

A customer organization or group with a paid product relationship.

support existing paid teams

distinct customer

A unique customer under the stated identity rule.

count distinct customers

prospect

A potential customer who has not yet made the relevant commitment.

distinguish prospects from customers

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

executive narrative EXECUTIVE NARRATIVE

shape the executive narrative

Keep the meaning precise: A concise explanation connecting evidence, trade-offs, and a decision.

evidence strength EVIDENCE STRENGTH

qualify evidence strength

Keep the meaning precise: The degree of support the available information gives a claim.

B Precision and professional shorthand

EXTEND YOUR RANGE

uncommitted pipeline

Potential business without the stated binding or accepted commitment.

qualify uncommitted pipeline

decision owner

The role authorized to make a specified choice.

identify the decision owner

counterargument

A reason offered against a proposed conclusion or action.

address the counterargument

assumption check

Review of a premise on which a proposal depends.

conduct an assumption check

decision boundary

The scope of what a particular approval does and does not authorize.

state the decision boundary

follow-up review

A scheduled evaluation of progress or results after a decision.

schedule the follow-up review

pilot scope

The bounded population, work, and duration of a trial.

define the pilot scope

displaced work

Work that does not proceed because another option uses capacity.

name the displaced work

steelman

Presenting the strongest reasonable version of another position.

steelman the alternative

reversibility

The extent to which a decision can be undone at acceptable cost.

assess reversibility

success measure

A defined indicator used to evaluate the intended result.

agree a success measure

decision record

Documentation of the choice, basis, authority, and conditions.

preserve the decision record

Say it in context

Stress the highlighted expression. Keep the surrounding words connected; pause at the end of the phrase.

prospect PROSPECT

distinguish prospects from customers

Keep the meaning precise: A potential customer who has not yet made the relevant commitment.

counterargument COUNTERARGUMENT

address the counterargument

Keep the meaning precise: A reason offered against a proposed conclusion or action.

Phrases that move the work forward

Lead with the action

I recommend the two-week reliability pilot.

State the evidence

The error category appears in 40 of 100 reviewed tickets.

Limit the outcome claim

We have not established a retention effect.

Apply the shared rule

Our criterion favors documented existing-customer friction.

Name the authority

I am asking the chair to approve this bounded pilot.

Invite a relevant challenge

Which assumption would change your view under the agreed objective?

Set the review

Review the pilot evidence after two weeks.

Record the decision

Capture the chosen scope, rationale, and owner.

Connect the objective

It directly addresses documented friction for existing paid teams.

Protect the unit

Those are tickets, not 40 distinct customers.

Represent the alternative

The dashboard could support prospect conversations, but the pipeline is uncommitted.

State the trade-off

Choosing A defers the sales-dashboard pilot.

Define the boundary

This is not approval for a full rollout.

Avoid personal framing

The disagreement concerns priorities, not the competence of either team.

Keep the measure honest

Agree the success measure before interpreting results.

Close the request

Approve or decline the pilot on the stated basis.

Precision in real exchanges

Purpose: Protect the unit

Useful wording: Those are tickets, not 40 distinct customers.

Purpose: Limit the outcome claim

Useful wording: We have not established a retention effect.

D Choose the response that fits

Choose one response for each situation. Preserve the facts, the decision boundary, and the purpose of the exchange.

1. Which opening is most decision-ready?

- A.** I recommend the two-week reliability pilot because it matches our agreed objective and documented ticket evidence.
- B.** We have had many interesting meetings and everyone has opinions.
- C.** The dashboard sponsor clearly does not care about customers.
- D.** Forty tickets prove forty customers will stay forever.

2. How should Iris describe the alternative?

- A.** It could support prospect conversations, but the supplied pipeline is uncommitted.
- B.** It has no possible value because it is not selected.
- C.** It is already guaranteed revenue.
- D.** Its sponsor's preference overrides every shared criterion automatically.

3. A colleague needs the term for this meaning: A defined basis for evaluating alternatives. Which term fits?

- A.** decision criterion
- B.** decision owner
- C.** decision boundary
- D.** ticket category

D Choose the response that fits / continued

4. Rebuild the exchange from "Turn competing opinions into a decision request".

Malik: "What exactly does the evidence show? I heard someone say forty customers are affected, but the briefing refers to forty tickets out of one hundred reviewed."

Iris: [missing response] Malik: "Does that also mean the reliability work will improve retention? That would be useful, but I do not want the recommendation to promise a result we have not measured." Which response belongs in the gap?

- A. It is a ticket category count, not forty distinct customers. The category appears in forty of the hundred reviewed tickets, and we should preserve that unit when presenting the problem.
- B. The shared objective is to reduce support friction for current paid teams this quarter. Under that objective, the ticket evidence gives A a more direct basis than uncommitted prospect requests.
- C. I will preserve the decision record with your choice and conditions. That gives both teams the same account of the decision, including what was approved and what was deferred.
- D. It could support prospect conversations, but the supplied uncommitted pipeline is not guaranteed business. That potential matters, yet it is less directly supported under the criterion chosen for this quarter.

[Answers and explanations, page 149](#)

One useful distinction

Forty of 100 reviewed tickets is 40% of those tickets. It is not 40 distinct customers or 40% of the customer population. The case supplies no causal retention effect. A recommendation can be well supported by problem fit while its future impact remains uncertain.

E Conversation

Turn competing opinions into a decision request

Turn competing opinions into a decision request

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

decision record / decision boundary / uncommitted pipeline / follow-up review /
recommendation / ticket category / shared objective / success measure / displaced work
/ retention effect

- 01 **Malik:** We keep debating reliability for customers and a dashboard for prospects. What decision are you asking us to make?
- 02 **Iris:** My ¹ _____ is to approve the two-week reliability pilot. It addresses the documented error category and fits the objective we agreed for existing paid teams.
- 03 **Malik:** State that objective explicitly. The executives have been using different ideas of success, which makes each option sound essential on its own terms.
- 04 **Iris:** The ² _____ is to reduce support friction for current paid teams this quarter. Under that objective, the ticket evidence gives A a more direct basis than uncommitted prospect requests.
- 05 **Malik:** What exactly does the evidence show? I heard someone say forty customers are affected, but the briefing refers to forty tickets out of one hundred reviewed.
- 06 **Iris:** It is a ³ _____ count, not forty distinct customers. The category appears in forty of the hundred reviewed tickets, and we should preserve that unit when presenting the problem.

E Conversation / continued

- 07 **Malik:** Does that also mean the reliability work will improve retention? That would be useful, but I do not want the recommendation to promise a result we have not measured.
- 08 **Iris:** No ⁴ _____ is established. We are proposing to address documented friction, not claiming the ticket count proves a future reduction in customer loss.
- 09 **Malik:** Sales will challenge that. What is the strongest case for their dashboard? Tell me what we give up, not just what supports your recommendation.
- 10 **Iris:** It could support prospect conversations, but the supplied ⁵ _____ is not guaranteed business. That potential matters, yet it is less directly supported under the criterion chosen for this quarter.

Conversation continues on the next page.

Turn competing opinions into a decision request

CONVERSATION / CONTINUED

- 11 **Malik:** Capacity permits one pilot. If I approve A, the dashboard pilot does not happen at the same time, and that consequence should be visible to the commercial team.
- 12 **Iris:** I will name the ⁶ _____. B is deferred, not declared worthless. Any later reconsideration should use updated evidence and the available capacity rather than an implied promise that it is already next.
- 13 **Malik:** How broad is the approval you want? I do not want a small pilot decision interpreted as permission to roll out a change across the entire customer base.
- 14 **Iris:** The ⁷ _____ is the defined two-week pilot. We should record its scope and responsible owner, with any wider rollout requiring its own evidence and decision.
- 15 **Malik:** We also need to agree what we will examine afterward. Otherwise each team may select whichever number makes its original preference look right.
- 16 **Iris:** Agree the ⁸ _____ before interpreting the results. It should connect to the friction we are addressing, with the limits of the pilot evidence kept visible.
- 17 **Malik:** Put the result review in for two weeks. Bring the same measures whether the pilot succeeds or disappoints; we need an actual decision at that meeting.
- 18 **Iris:** The ⁹ _____ will show what changed, what remains uncertain, and what decision follows. The review date does not promise a retention result or automatic expansion.
- 19 **Malik:** The request is clear: one bounded pilot, an explicit trade-off, and a defined review. I will decide on that basis and record any conditions.
- 20 **Iris:** I will preserve the ¹⁰ _____ with your choice and conditions. That gives both teams the same account of the decision, including what was approved and what was deferred.

CHECK THE GAPS

1. recommendation / 2. shared objective / 3. ticket category / 4. retention effect / 5. uncommitted pipeline / 6. displaced work / 7. decision boundary / 8. success measure / 9. follow-up review / 10. decision record

[Why these answers fit, page 150](#)

F Check accuracy and scope

Turn competing opinions into a decision request

Return to the case

Product lead Iris prepares a decision with executive chair Malik. The agreed quarterly objective is to reduce support friction for existing paid teams. Option A is a two-week reliability pilot addressing an error category present in 40 of 100 reviewed support tickets. Those tickets are not 40 distinct customers, and no retention effect is established. Option B is a sales dashboard requested for uncommitted prospects. Capacity allows only one pilot. The agreed criterion favors documented existing-customer friction; the chair makes the decision. Iris recommends A, with B deferred and results reviewed after two weeks.

Choose one answer per question. Use the case facts and keep any uncertainty or limits intact.

1. What does approval of the requested pilot authorize?

- A. Every deferred feature in addition to the pilot
- B. The defined two-week pilot within its agreed scope
- C. An unlimited rollout to every customer
- D. A proven retention improvement

2. Which statement about the ticket evidence is accurate?

- A. It proves the pilot already solved the problem.
- B. It identifies a documented issue category but does not establish distinct-customer count or retention impact.
- C. It proves exactly forty separate organizations are affected.
- D. It is a census of the entire paid population.

[Answers and explanations, page 152](#)

Listen for the distinction

Switch roles for turns 11-20. Keep pilot approval distinct from full rollout.

Recommend clearly without overstating certainty

Executives need a decision-ready explanation, not a history of every meeting. Lead with the recommendation, connect it to the shared objective and evidence, state the trade-off, and identify the decision requested. Acknowledge the alternative fairly rather than caricaturing the executive who prefers it.

F Say it / transfer to a new case

Tickets are not customers

A team reviews 80 tickets; 20 concern a specific error. Unique-customer counts and retention effects are unknown. The product lead recommends a ten-day pilot, with final approval assigned to the chair.

Complete the four gaps. With a partner, read alternate roles, then switch. Studying alone, read both roles and pause before each response.

WORD AND PHRASE BANK

10 / tickets / 25 / approval

- 01 **Product:** The error appears in ¹ _____ percent of reviewed tickets.
- 02 **Chair:** The unit counted is ² _____.
- 03 **Product:** The proposed pilot lasts ³ _____ days.
- 04 **Chair:** The recommendation still requires my ⁴ _____.

CHECK THE GAPS

1. 25 / 2. tickets / 3. 10 / 4. approval

[Why these answers fit, page 152](#)

F Say it / transfer to a new case / continued

Rebuild the exchange

Choose the missing response. Read the completed three-turn exchange aloud, changing roles on the second reading.

1. Rebuild the exchange from "Turn competing opinions into a decision request". Malik: "How broad is the approval you want? I do not want a small pilot decision interpreted as permission to roll out a change across the entire customer base." Iris: [missing response] Malik: "We also need to agree what we will examine afterward. Otherwise each team may select whichever number makes its original preference look right." Which response belongs in the gap?

- A.** The follow-up review will show what changed, what remains uncertain, and what decision follows. The review date does not promise a retention result or automatic expansion.
- B.** The decision boundary is the defined two-week pilot. We should record its scope and responsible owner, with any wider rollout requiring its own evidence and decision.
- C.** Agree the success measure before interpreting the results. It should connect to the friction we are addressing, with the limits of the pilot evidence kept visible.
- D.** My recommendation is to approve the two-week reliability pilot. It addresses the documented error category and fits the objective we agreed for existing paid teams.

[Answers and explanations, page 153](#)

Review 4 / Meaning and context

Use language from the lessons you have completed. Choose one answer per question.

Case file

Revisit "Platform, APIs, and Technical Debt" and "Stakeholder Pushback and Executive Narrative". Choose precise terminology, then reconstruct the missing responses using both neighboring turns. The final two questions also revisit earlier conversations.

1. A colleague needs the term for this meaning: The agreed inputs, outputs, and behavior of an interface. Which term fits?

- A. duplicated logic
- B. API contract
- C. breaking change
- D. expiry condition

2. A colleague needs the term for this meaning: A customer organization or group with a paid product relationship. Which term fits?

- A. uncommitted pipeline
- B. assumption check
- C. paid team
- D. executive narrative

3. Rebuild the exchange from "The software is ready; the support handoff is not". Rob: "I can show that we sent a file. Are you saying I also need the Support lead to confirm that it answers the migration questions?" Ana: [missing response] Rob: "We can keep Friday's ten o'clock meeting scheduled while those actions proceed. But the invitation should not be read as proof that the launch has already been approved." Which response belongs in the gap?

- A. Yes. Support enablement is part of this launch. The team needs to explain the changed permissions and route questions, not merely know that a new version exists.
- B. We need acceptance confirmation. Sent and accepted are different states here, and the readiness record should preserve both rather than assume silence means the document is sufficient.
- C. We can assign a dependency owner and that deadline. We should also confirm who performs the recipient review so delivery does not become an unowned handoff.
- D. That gives an accurate operational readiness picture. We can keep preparing for the launch while leaving its approval with the responsible review and the evidence it requires.

Review 4 / Meaning and context / continued

4. Rebuild the exchange from "Turn competing opinions into a decision request".

Malik: "Put the result review in for two weeks. Bring the same measures whether the pilot succeeds or disappoints; we need an actual decision at that meeting." Iris:

[missing response] Malik: "The request is clear: one bounded pilot, an explicit trade-off, and a defined review. I will decide on that basis and record any conditions."

Which response belongs in the gap?

- A.** The follow-up review will show what changed, what remains uncertain, and what decision follows. The review date does not promise a retention result or automatic expansion.
- B.** Agree the success measure before interpreting the results. It should connect to the friction we are addressing, with the limits of the pilot evidence kept visible.
- C.** The decision boundary is the defined two-week pilot. We should record its scope and responsible owner, with any wider rollout requiring its own evidence and decision.
- D.** My recommendation is to approve the two-week reliability pilot. It addresses the documented error category and fits the objective we agreed for existing paid teams.

[Answers and explanations, page 163](#)

Language for the next case

What exactly counts as a paid seat?

seat type

Seat type distinguishes editors, who count toward this proposed price, from viewers, who do not.

Mina: The paid seat type is editor. Viewers can belong to the workspace without adding a charge. The page needs to make that distinction explicit.

proration

Proration concerns adjusting a charge for part of a billing period; the full-month example supplies no approved partial-month rule.

Mina: The proration rule is still unresolved. Please mark that case as a decision needed, rather than assume a daily rate or a full-month charge.

Grandfathering

Grandfathering means retaining specified existing terms for an eligible group; whether it applies here remains a separate unapproved policy decision.

Mina: No. Grandfathering is a separate policy question. Neither continued old terms nor automatic migration has been approved for those customers.

included allowance

The included allowance covers eight editor seats within the base price; only the additional three incur the stated extra charge.

Mina: Yes. The included allowance is eight editor seats. Eleven editors means three additional seats, not eleven additional charges.

entitlement

An entitlement is a capability or allowance provided by the plan, distinct from the number of seats used to calculate its price.

Mina: That is an entitlement mismatch. Correct the capability table as well as the price; a consistent subtotal does not fix an inaccurate feature promise.

invoice preview

An invoice preview shows the proposed charge breakdown before final billing; it is not evidence that an unlaunched plan or unresolved policy is approved.

Mina: Use an invoice preview with the eleven editors and nine viewers. Label it as a full-month subtotal before tax, not an actual invoice.

Read the phrases aloud. Then complete the conversation on the following pages using the word bank.

Conversation

What exactly counts as a paid seat?

A proposed monthly plan costs \$120 including eight editor seats. Each additional editor seat costs \$12 for a full month; viewers are free. Taxes and partial-month changes are outside this example. A draft incorrectly calls every member a paid user. The plan is not launched.

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

seat type / entitlement / proration / Grandfathering / invoice preview /
included allowance

- 01 **Theo:** Your plan page says twenty members, but the billing specification counts editors. Which number am I supposed to show in the preview?
- 02 **Mina:** The paid ¹ _____ is editor. Viewers can belong to the workspace without adding a charge. The page needs to make that distinction explicit.
- 03 **Theo:** Then a workspace with eleven editors and nine viewers has twenty members but only eleven seats counted for this price. Correct?
- 04 **Mina:** Yes. The ² _____ is eight editor seats. Eleven editors means three additional seats, not eleven additional charges.
- 05 **Theo:** At twelve dollars each, those three add thirty-six dollars. With the base charge, the full-month subtotal is one hundred fifty-six dollars.
- 06 **Mina:** That matches the proposal. Show the base, included seats, additional quantity, and unit price separately so customers can reproduce the total.
- 07 **Theo:** What if someone promotes a viewer halfway through the month? The full-month example does not tell me what to charge then.
- 08 **Mina:** The ³ _____ rule is still unresolved. Please mark that case as a decision needed, rather than assume a daily rate or a full-month charge.
- 09 **Theo:** We also need the event that changes the billable quantity. An invitation is not necessarily an accepted membership or an editor assignment.
- 10 **Mina:** Agreed. Bring those states to the billing review. The product and billing records must agree about which event starts or ends a charge.

Conversation continues on the next page.

What exactly counts as a paid seat?

CONVERSATION / CONTINUED

- 11 **Theo:** The feature table has another issue. It says unlimited exports, while the proposed plan permits five scheduled exports a month.
- 12 **Mina:** That is an ⁴ _____ mismatch. Correct the capability table as well as the price; a consistent subtotal does not fix an inaccurate feature promise.
- 13 **Theo:** Does the five-export limit include manual downloads? The current wording could be read either way.
- 14 **Mina:** The proposal only specifies scheduled exports. We need the owner to confirm manual-download behavior before we publish a broader statement.
- 15 **Theo:** Some existing customers have a different plan. Should the new page imply their terms change on launch day?
- 16 **Mina:** No. ⁵ _____ is a separate policy question. Neither continued old terms nor automatic migration has been approved for those customers.
- 17 **Theo:** I will keep the existing-customer decision separate and prepare a clearly labeled example for the proposed new plan.
- 18 **Mina:** Use an ⁶ _____ with the eleven editors and nine viewers. Label it as a full-month subtotal before tax, not an actual invoice.
- 19 **Theo:** I will also list partial-month changes, invitation states, manual downloads, and existing-customer treatment as open decisions.
- 20 **Mina:** Good. We can review the example now, but the page and billing rules need the same approved definitions before launch.

CHECK THE GAPS

1. seat type / 2. included allowance / 3. proration / 4. entitlement / 5. Grandfathering / 6. invoice preview

[Why these answers fit, page 166](#)

Members are mistaken for extra seats

Use the proposed full-month plan above. A workspace has ten editors and six viewers. No partial-month rule has been approved.

Complete the exchange using each phrase once. Read both roles, then switch roles and repeat with the bank covered.

WORD AND PHRASE BANK

two / twenty-four / one hundred forty-four / proration

- 01 **Billing:** Ten editors use eight included seats and ¹ _____ additional seats.
- 02 **Product:** That adds ² _____ dollars to the base charge.
- 03 **Billing:** The subtotal before tax is ³ _____ dollars.
- 04 **Product:** Do not apply this full-month example to an unresolved ⁴ _____ rule.

CHECK THE GAPS

1. two / 2. twenty-four / 3. one hundred forty-four / 4. proration

[Why these answers fit, page 166](#)

Keep the distinction audible

Resolve conflicting plan descriptions before a customer sees a price.

Language for the next case

The button works, but keyboard users cannot see it

keyboard navigation

Keyboard navigation uses keys to move between and operate controls; a successful mouse click does not establish that this route is usable.

Ellis: It is a keyboard navigation problem. Tab reaches Save, but the promotion banner covers the entire button, so the user cannot see which control is active.

sticky banner

The sticky banner remains positioned over the focused control; changing the color of a completely covered button would not remove that obstruction.

Ellis: Not while the sticky banner covers it completely. We need the layout or scrolling behavior to expose the focused control, not just recolor what is behind it.

reproduction steps

Reproduction steps describe how to observe the actual defect; a clean automated report does not disprove a manually reproducible keyboard problem.

Ellis: No. These reproduction steps still produce the problem. Automated checks are useful, but they do not replace the interaction check that exposed it.

focus indicator

The focus indicator is the visible cue identifying the active control; here both it and the button are hidden behind the banner.

Ellis: Focus reaches it. The focus indicator is hidden along with the button. I can reproduce it using the recorded browser size and zoom.

acceptance criterion

The acceptance criterion defines the specific observable result required for this correction; passing it does not establish complete accessibility conformance.

Ellis: Keep the acceptance criterion specific: the focused Save control must not be entirely hidden by our content on the documented route. We should aim for it to be fully visible.

regression test

A regression test checks that a previously identified problem stays corrected and that the change has not reintroduced the relevant failure.

Ellis: Once the change is ready, include a regression test for this keyboard route. Also check that Save remains operable, not merely visible.

Read the phrases aloud. Then complete the conversation on the following pages using the word bank.

Conversation

The button works, but keyboard users cannot see it

A new sticky promotion banner completely covers the Save button when that button receives keyboard focus. The issue is reproduced at a documented browser size and zoom setting. A mouse-only test passed. The team must define the defect and a retest, not certify the entire product.

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

focus indicator / reproduction steps / acceptance criterion / sticky banner / regression test
/ keyboard navigation

- 01 **Ravi:** The Save button passed the click test yesterday. Is this a separate defect, or the same one reported twice?
- 02 **Ellis:** It is a ¹ _____ problem. Tab reaches Save, but the promotion banner covers the entire button, so the user cannot see which control is active.
- 03 **Ravi:** Does the focus actually move to the button, or does it get trapped somewhere earlier in the page?
- 04 **Ellis:** Focus reaches it. The ² _____ is hidden along with the button. I can reproduce it using the recorded browser size and zoom.
- 05 **Ravi:** Then calling the button disabled would be inaccurate. It is active, but covered. Can you attach the sequence rather than only a screenshot?
- 06 **Ellis:** Yes. I will record the starting position, keys pressed, viewport, zoom, and expected result. The screenshot will show where the obstruction occurs.
- 07 **Ravi:** The designer asks whether making the button a brighter color would solve it. That would be a small change.
- 08 **Ellis:** Not while the ³ _____ covers it completely. We need the layout or scrolling behavior to expose the focused control, not just recolor what is behind it.
- 09 **Ravi:** Could we remove the banner from this version while the permanent change is designed? The promotional content is not essential to saving.
- 10 **Ellis:** That is an option to evaluate. Removing it still needs testing so we do not assume the replacement layout has no other problem.

Conversation continues on the next page.

The button works, but keyboard users cannot see it

CONVERSATION / CONTINUED

- 11 **Ravi:** How should we describe the relevant accessibility requirement without claiming that one check proves the whole application conforms?
- 12 **Ellis:** Keep the ⁴ _____ specific: the focused Save control must not be entirely hidden by our content on the documented route. We should aim for it to be fully visible.
- 13 **Ravi:** And test more than that one screenshot size? The banner changes height when its text wraps.
- 14 **Ellis:** Yes. Agree relevant layouts and settings for the retest. The original reproduction is the starting point, not the entire coverage plan.
- 15 **Ravi:** We already have an automated report with no failures. Can that close this ticket?
- 16 **Ellis:** No. These ⁵ _____ still produce the problem. Automated checks are useful, but they do not replace the interaction check that exposed it.
- 17 **Ravi:** I will keep the ticket open, attach the evidence, and ask Design and Engineering to assess removing or repositioning the banner.
- 18 **Ellis:** Once the change is ready, include a ⁶ _____ for this keyboard route. Also check that Save remains operable, not merely visible.
- 19 **Ravi:** The release note can say this particular obstruction was corrected after verification, not that every accessibility issue is fixed.
- 20 **Ellis:** Exactly. Report the tested behavior and scope. That is more useful than a broad assurance unsupported by the work.

CHECK THE GAPS

1. keyboard navigation / 2. focus indicator / 3. sticky banner / 4. acceptance criterion / 5. reproduction steps / 6. regression test

[Why these answers fit, page 168](#)

A clean scan is offered instead of a keyboard retest

After a banner change, the automated scan is clear. Nobody has repeated the keyboard route that originally hid Save.

Complete the exchange using each phrase once. Read both roles, then switch roles and repeat with the bank covered.

WORD AND PHRASE BANK

zoom / operable / retest / conformance

- 01 **Product:** The scan does not replace the keyboard ¹ _____.
- 02 **Specialist:** Repeat the recorded steps at the stated size and ² _____.
- 03 **Product:** Confirm that Save is visible and remains ³ _____.
- 04 **Specialist:** Report this correction without claiming complete ⁴ _____.

CHECK THE GAPS

1. retest / 2. zoom / 3. operable / 4. conformance

[Why these answers fit, page 168](#)

Keep the distinction audible

Describe an accessibility defect precisely and negotiate a testable correction.

Language for the next case

A research task that accidentally gives away the answer

usability task

A usability task sets a goal for the participant without supplying the interface actions whose discoverability the research is intended to examine.

Omar: It gives away the route. For a usability task, describe the goal: an invoice needs your approval before payment. Let the participant find how to do it.

recruitment screener

The recruitment screener checks participant characteristics against the research question; role and frequency matter more here than general familiarity with the product.

Omar: Possibly, but revise the recruitment screener for the approval sessions. Do not silently relabel the recruited group as representative of monthly approvers.

informed consent

Informed consent requires participants to understand and agree to the proposed research and recording arrangements; attendance alone does not establish agreement to recording.

Omar: Arrange informed consent before recording, under our research process. Explain the purpose, access, retention, and choices clearly; do not assume attendance authorizes a recording.

leading instruction

A leading instruction directs the participant toward a particular action and can obscure whether the interface itself supports the task.

Omar: Exactly. That wording is a leading instruction. A successful click after we name the control would not answer the original discoverability question.

moderator assistance

Moderator assistance is help supplied during the session; documenting it distinguishes independent task completion from completion after prompting or guidance.

Omar: Add moderator assistance to the observation record. Completion after a hint is different from completion without help.

discussion guide

The discussion guide provides the planned tasks and neutral prompts, helping sessions address the same questions without prescribing participants' actions.

Omar: Good. The discussion guide should also say what to do if real information appears, so the session stays within our agreed safeguards.

Read the phrases aloud. Then complete the conversation on the following pages using the word bank.

Conversation

A research task that accidentally gives away the answer

A team will observe invoice approvers using a prototype. Its draft task names the button participants are meant to discover. Recruiting has selected daily administrators, although the target role approves invoices only monthly. All invoice data will be fictional.

Complete the numbered gaps. Use each bank entry once; some entries contain several words.

WORD AND PHRASE BANK

informed consent / leading instruction / moderator assistance / usability task /
recruitment screener / discussion guide

- 01 **June:** The task says, "Click the Approvals tab and approve the invoice." Is that clear enough for tomorrow's sessions?
- 02 **Omar:** It gives away the route. For a ¹ _____, describe the goal: an invoice needs your approval before payment. Let the participant find how to do it.
- 03 **June:** So we should remove the tab name. We want to observe whether they find it, not whether they can follow our instructions.
- 04 **Omar:** Exactly. That wording is a ² _____. A successful click after we name the control would not answer the original discoverability question.
- 05 **June:** The recruiting list is all administrators. They process invoices every day. Are they close enough to the monthly approvers we described?
- 06 **Omar:** Not for that question. Familiar administrators may know paths that occasional approvers have to rediscover. We need people with the relevant role and frequency of use.
- 07 **June:** Could we still interview the administrators about setup, then keep those findings separate from the approval task?
- 08 **Omar:** Possibly, but revise the ³ _____ for the approval sessions. Do not silently relabel the recruited group as representative of monthly approvers.
- 09 **June:** I will make the role and frequency explicit. What happens if a participant gets stuck and asks which tab to use?
- 10 **Omar:** Give them time and use a neutral prompt such as, "What would you do next?" If we provide help, record when and what we supplied.

Conversation continues on the next page.

A research task that accidentally gives away the answer

CONVERSATION / CONTINUED

- 11 **June:** The observer sheet has only pass or fail. That would hide the fact that someone finished after we told them the route.
- 12 **Omar:** Add ⁴ _____ to the observation record. Completion after a hint is different from completion without help.
- 13 **June:** Sales wants to sit in and explain why we designed the screen that way. I suspect that could change what we observe.
- 14 **Omar:** Ask observers to hold comments. We are examining the interface, not testing the participant, and defending the design can discourage candid reactions.
- 15 **June:** Can we record the sessions for the team? I have not put recording in the participant information yet.
- 16 **Omar:** Arrange ⁵ _____ before recording, under our research process. Explain the purpose, access, retention, and choices clearly; do not assume attendance authorizes a recording.
- 17 **June:** We will use the fictional invoices and the prototype account. There is no need for participants to show their real invoices or passwords.
- 18 **Omar:** Good. The ⁶ _____ should also say what to do if real information appears, so the session stays within our agreed safeguards.
- 19 **June:** I will update the task, recruitment request, observer instructions, and recording information before confirming the sessions.
- 20 **Omar:** Then we can learn how the intended users approach the task, while keeping assistance and the limits of the sample visible in the findings.

CHECK THE GAPS

1. usability task / 2. leading instruction / 3. recruitment screener / 4. moderator assistance / 5. informed consent / 6. discussion guide

[Why these answers fit, page 170](#)

A prompted completion is reported as independent

A participant finds Approvals only after the moderator names the tab. The observer records an unassisted success.

Complete the exchange using each phrase once. Read both roles, then switch roles and repeat with the bank covered.

WORD AND PHRASE BANK

observation / discoverability / prompt / tab

- 01 **Researcher:** The participant finished after a ¹ _____.
- 02 **Product:** Change the result to assisted completion and retain the ² _____.
- 03 **Researcher:** The next task should describe the goal without naming the ³ _____.
- 04 **Product:** Do not use this outcome as proof of independent ⁴ _____.

CHECK THE GAPS

1. prompt / 2. observation / 3. tab / 4. discoverability

[Why these answers fit, page 170](#)

Keep the distinction audible

Revise leading research language and agree a neutral, respectful session.

01 / Answers and explanations

A / Read the situation

A1. What do eight tickets describe?

B. Difficulty finding the existing Export action

Eight records concern discoverability, while four describe permission restrictions.

[Return to the exercise, page 4](#)

A2. What do the other four describe?

A. The action was found, but the required permission was missing.

Those four users reached the action but could not use it under their permissions.

[Return to the exercise, page 4](#)

A3. What have Morgan and Li agreed to do?

B. Prepare a two-day investigation of navigation and permission messaging.

The agreement is a bounded investigation before selecting or approving a design change.

[Return to the exercise, page 4](#)

D / Response choices

D1. Which problem framing fits the tickets?

D. Users encounter two barriers: finding Export and understanding or obtaining the required permission.

The evidence separates discoverability and permission without assuming one implementation solves both.

[Return to the exercise, page 8](#)

D2. Which statement overclaims the ticket evidence?

C. Every user is unable to export.

The reviewed tickets do not establish the experience or prevalence of the entire user population.

[Return to the exercise, page 8](#)

01 / Answers and explanations / continued

D3. A colleague needs the term for this meaning: An outcome a user needs to accomplish. Which term fits?

D. user need

A Not here. research question: A specific uncertainty the investigation aims to resolve. The usual combination is "define the research question".

B Not here. viability: Whether a solution can support the relevant business needs. The usual combination is "assess viability".

C Not here. permission: Authorization to perform a defined action. The usual combination is "explain the permission requirement".

D Correct. user need: An outcome a user needs to accomplish. The usual combination is "identify the user need".

[Return to the exercise, page 8](#)

D4. Rebuild the exchange from "One button request, two different problems".
Morgan: "So the button might help eight of them, but it would leave the other four stuck. Can we keep those groups separate in the ticket summary?" Li: [missing response]
Morgan: "I can attach the relevant ticket excerpts and task details. We should not just count the phrase cannot export when it can describe different experiences." Which response belongs in the gap?

C. Right. Their permission problem needs its own review. We can examine the explanation and request path without suggesting that legitimate access controls should disappear.

A Not here. This line belongs to turn 12, after Morgan says: "How much investigation are we talking about? Support needs a date for an update, even if we cannot promise a fix yet." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 4, after Morgan says: "We reviewed twelve tickets from last month. Eight users could not find the action. Four found it but did not have the required permission." It addresses that point, not the missing turn in the supplied exchange.

C Correct. This is Li's response in turn 6. It connects Morgan's preceding point with Morgan's follow-up. Permission is authorization to use the action, distinct from being able to locate it.

D Not here. This line belongs to turn 10, after Morgan says: "For the navigation cases, I would like to know where people started and which menu labels they tried. That could explain why the existing location was missed." It addresses that point, not the missing turn in the supplied exchange.

[Return to the exercise, page 8](#)

E / Conversation

1. solution request

Turn 2. The solution request names a new button, while the underlying evidence may support more than one kind of problem.

01 / Answers and explanations / continued

2. discoverability

Turn 4. Discoverability concerns finding the available action, which is the barrier described in eight of the twelve tickets.

3. permission

Turn 6. Permission is authorization to use the action, distinct from being able to locate it.

4. support evidence

Turn 8. Support evidence provides concrete reported experiences, but the ticket sample does not establish prevalence among all users.

5. navigation path

Turn 10. The navigation path records the sequence users followed and can reveal where they missed the existing action.

6. discovery scope

Turn 12. Discovery scope bounds the work to navigation and permission messaging, creating a specific decision point before design selection.

7. research question

Turn 14. The research question tests the user's task and obstacle instead of soliciting approval of a predetermined button solution.

8. user need

Turn 16. The user need concerns accomplishing the export task appropriately, rather than mandating a specific interface element.

9. prototype

Turn 18. A prototype can test a proposed design before committing to full implementation, using the findings from the bounded investigation.

10. problem statement

Turn 20. The problem statement separates the two observed barriers and gives the next design discussion an evidence-based starting point.

[Return to the conversation, page 10](#)

01 / Answers and explanations / continued

F / Accuracy and scope

F1. Which discovery task is appropriately focused?

D. Observe the export path and review permission messaging for the two ticket groups.

The task addresses the two identified barriers and can inform a bounded solution decision.

[Return to the exercise, page 12](#)

F2. Why is adding a button not a complete answer for the four permission cases?

A. Finding an action and being authorized to use it are separate conditions.

Those users already located Export, so another location would not itself grant the missing permission.

[Return to the exercise, page 12](#)

F / Guided speaking

1. discoverability

Support: Six tickets concern discoverability.

Turn 1. Those users could not find the existing action, which is a discoverability problem.

2. permission

Product: Four concern permission.

Turn 2. The other users found Download but lacked authorization to use it.

3. approved

Support: A design change is not yet approved.

Turn 3. The briefing explicitly leaves design approval absent at this stage.

4. users

Product: These records are a ticket sample, not all users.

Turn 4. The supplied records do not establish the experience of every user.

[Return to the conversation, page 13](#)

01 / Answers and explanations / continued

F / Rebuild the exchange

1. Rebuild the exchange from "One button request, two different problems". Morgan: "For the navigation work, the question should be whether people can find the action when they need it, not whether they like our preferred button idea." Li: [missing response] Morgan: "The permission review should also check whether the message explains why access is unavailable and what the legitimate next step is. It should not promise access automatically." Which response belongs in the gap?

D. That is a better research question. We can observe what happens and compare the evidence with the assumption behind the request.

A Not here. This line belongs to turn 12, after Morgan says: "How much investigation are we talking about? Support needs a date for an update, even if we cannot promise a fix yet." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 6, after Morgan says: "So the button might help eight of them, but it would leave the other four stuck. Can we keep those groups separate in the ticket summary?" It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 10, after Morgan says: "For the navigation cases, I would like to know where people started and which menu labels they tried. That could explain why the existing location was missed." It addresses that point, not the missing turn in the supplied exchange.

D Correct. This is Li's response in turn 14. It connects Morgan's preceding point with Morgan's follow-up. The research question tests the user's task and obstacle instead of soliciting approval of a predetermined button solution.

[Return to the exercise, page 13](#)

02 / Answers and explanations

A / Read the situation

A1. Which feature addresses the recorded fixed commitment?

C. B, audit export

The briefing identifies B as required for the October 31 customer commitment.

[Return to the exercise, page 14](#)

A2. Which pair follows the agreed priority rule?

B. B and A

B protects the fixed commitment, and A then supports the agreed activation goal.

[Return to the exercise, page 14](#)

A3. What does the two-week date mean for C?

D. A review point, not a promised delivery date

Nora proposes reviewing C again in two weeks, not delivering or approving it then.

[Return to the exercise, page 14](#)

D / Response choices

D1. Which response best explains deferring C?

B. B protects the fixed commitment and A supports activation; C does not fit the two-slot capacity.

The explanation applies the supplied rule and states the capacity consequence without personal dismissal or an invented date.

[Return to the exercise, page 18](#)

D2. If C is added with no capacity change, what must happen?

B. A or B must be displaced.

Each feature requires one slot and the briefing rules out splitting, so another selection must change.

[Return to the exercise, page 18](#)

02 / Answers and explanations / continued

D3. A colleague needs the term for this meaning: A limit on work the team can undertake in the period. Which term fits?

B. capacity constraint

A Not here. escalation: Raising a decision beyond the current authority or agreement. The usual combination is "define the escalation route".

B Correct. capacity constraint: A limit on work the team can undertake in the period. The usual combination is "state the capacity constraint".

C Not here. trade-off: A choice that gains one benefit while giving up another. The usual combination is "make the trade-off explicit".

D Not here. cost of delay: The consequence of postponing work over a stated period. The usual combination is "assess cost of delay".

[Return to the exercise, page 18](#)

D4. Rebuild the exchange from "Three urgent requests, two delivery slots". Samir: "The audit export has the October thirty-first customer commitment. That is different from my team's interest in showing a more current home page." Nora: [missing response] Samir: "That leaves one slot. Setup recovery directly supports activation, which is the outcome we agreed to improve this cycle. We have not supplied similar evidence for the refresh." Which response belongs in the gap?

A. Yes. B protects that fixed commitment. We should not displace it without explicitly addressing the obligation and the required authority, rather than treating it as another optional preference.

A Correct. This is Nora's response in turn 6. It connects Samir's preceding point with Samir's follow-up. The fixed commitment is the recorded October 31 audit-export obligation that the supplied rule prioritizes.

B Not here. This line belongs to turn 16, after Samir says: "Two weeks is a review, then, not a release date? I need to correct that in my customer-call notes before it becomes an expectation." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 10, after Samir says: "Could we include a smaller refresh alongside the other two? I want to test that option before telling the sponsor the request has moved out." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 4, after Samir says: "Understood. But I need more than "there is no room" for the sponsor. Can you walk me through the rule we agreed?" It addresses that point, not the missing turn in the supplied exchange.

[Return to the exercise, page 18](#)

02 / Answers and explanations / continued

E / Conversation

1. capacity constraint

Turn 2. The capacity constraint is two available delivery slots for three one-slot features, with no feasible split this cycle.

2. decision rule

Turn 4. The decision rule protects recorded fixed commitments first and then the activation goal, rather than ranking sponsors by forcefulness.

3. fixed commitment

Turn 6. The fixed commitment is the recorded October 31 audit-export obligation that the supplied rule prioritizes.

4. product goal

Turn 8. The product goal is the agreed activation outcome, which setup recovery directly supports in the supplied facts.

5. scope split

Turn 10. A scope split would divide work into useful smaller parts, but the briefing states it is not feasible this cycle.

6. opportunity cost

Turn 12. Opportunity cost makes the displaced alternative visible when C competes for one of the two available slots.

7. review trigger

Turn 14. A review trigger identifies new evidence or a condition that would justify reconsidering C under the agreed decision rule.

8. deferred item

Turn 16. A deferred item is outside the current cycle; its review date does not guarantee a future delivery slot.

9. decision log

Turn 18. The decision log preserves the selected pair, shared rationale, capacity constraint, and conditions for reconsideration.

02 / Answers and explanations / continued

10. product roadmap

Turn 20. The product roadmap communicates the selected direction and priorities without implying that every requested feature is simultaneously committed.

[Return to the conversation, page 20](#)

F / Accuracy and scope

F1. What new information could justify reconsideration?

A. Relevant evidence changing C's position under the agreed criteria

A priority decision can change with relevant evidence, not merely repeated preference.

[Return to the exercise, page 23](#)

F2. Which statement about the review is accurate?

C. C will be reconsidered in two weeks without a promised delivery date.

A reconsideration checkpoint preserves flexibility without creating an unsupported release commitment.

[Return to the exercise, page 23](#)

F / Guided speaking

1. X

Product: The first selection is X.

Turn 1. X protects the fixed commitment, which the stated rule ranks first.

2. Y

Sponsor: The second selection is Y.

Turn 2. Y supports activation, the next criterion after fixed commitments.

3. Z

Product: The deferred item is Z.

Turn 3. Z has neither supplied priority basis and cannot fit alongside both selected items.

4. trade-off

Sponsor: Adding it requires a trade-off.

Turn 4. With unchanged two-slot capacity, adding Z displaces one of the selected features.

[Return to the conversation, page 24](#)

02 / Answers and explanations / continued

F / Rebuild the exchange

1. Rebuild the exchange from "Three urgent requests, two delivery slots". Samir: "I can explain that to the sponsor. How can we bring new evidence back if a specific customer consequence becomes clearer?" Nora: [missing response] Samir: "Two weeks is a review, then, not a release date? I need to correct that in my customer-call notes before it becomes an expectation." Which response belongs in the gap?

A. Set a review trigger. Relevant new evidence can change the decision, but the review must still account for the fixed commitment, activation goal, and available capacity.

A Correct. This is Nora's response in turn 14. It connects Samir's preceding point with Samir's follow-up. A review trigger identifies new evidence or a condition that would justify reconsidering C under the agreed decision rule.

B Not here. This line belongs to turn 6, after Samir says: "The audit export has the October thirty-first customer commitment. That is different from my team's interest in showing a more current home page." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 4, after Samir says: "Understood. But I need more than "there is no room" for the sponsor. Can you walk me through the rule we agreed?" It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 20, after Samir says: "Then I will tell the commercial team that the refresh is deferred under the agreed rule, not canceled forever, and that the next discussion needs evidence rather than another urgency label." It addresses that point, not the missing turn in the supplied exchange.

[Return to the exercise, page 24](#)

03 / Answers and explanations

A / Read the situation

A1. When does the stated timing end?

D. When records and the primary action are usable

The criterion ends at usable content and action, not merely the start of technical activity.

[Return to the exercise, page 27](#)

A2. Does the trial meet the stated timing and error criterion?

D. Yes; 96 finish within 2 seconds and all finish within 5 seconds without errors.

The supplied rule requires at least 95 fast runs and all runs within the five-second ceiling, with no errors.

[Return to the exercise, page 27](#)

A3. What remains open after this trial?

B. Other completion checks

Passing this criterion does not complete the other checks explicitly left open in the briefing.

[Return to the exercise, page 27](#)

D / Response choices

D1. Which criterion matches the agreed performance rule?

A. At least 95 of 100 defined navigations usable within 2 seconds, all within 5, without errors

The correct criterion preserves usable completion, both count and ceiling requirements, and the no-error condition. An average or a loading shell measures something different.

[Return to the exercise, page 31](#)

D2. What if only 94 runs meet 2 seconds, while all finish before 5 seconds without errors?

A. The stated criterion fails.

The rule independently requires at least 95 runs within two seconds, so meeting the ceiling alone is insufficient.

[Return to the exercise, page 31](#)

03 / Answers and explanations / continued

D3. A colleague needs the term for this meaning: A required behavior or capability. Which term fits?

D. functional requirement

A Not here. tail latency: Response times in the slower part of a distribution. The usual combination is "monitor tail latency".

B Not here. test profile: The defined environment and conditions for a test. The usual combination is "use the agreed test profile".

C Not here. testability: The ability to evaluate a requirement with a defined check. The usual combination is "improve testability".

D Correct. functional requirement: A required behavior or capability. The usual combination is "specify a functional requirement".

[Return to the exercise, page 31](#)

D4. Rebuild the exchange from "Quickly needs a clock and a test condition". Eva: "We should fix the data as well. Let us use the agreed one-thousand-record dataset so a smaller empty page does not stand in for the actual check." Omar: [missing response] Eva: "For the main threshold, I propose that at least ninety-five of one hundred navigations finish within two seconds. We should also define what happens to the slower runs." Which response belongs in the gap?

C. Use that test fixture with profile N. The evidence needs its configuration attached so another reviewer can understand what was measured and repeat the check appropriately.

A Not here. This line belongs to turn 18, after Eva says: "We should preserve the distinction between an ordinary successful path and the other states the product must handle. This test did not define every exceptional situation." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 10, after Eva says: "The dashboard gives me an average. Could you send the individual run counts as well? Otherwise I cannot check our ninety-five-out-of-a-hundred rule." It addresses that point, not the missing turn in the supplied exchange.

C Correct. This is Omar's response in turn 6. It connects Eva's preceding point with Eva's follow-up. The test fixture supplies controlled data and setup, here the fixed one-thousand-record dataset.

D Not here. This line belongs to turn 8, after Eva says: "For the main threshold, I propose that at least ninety-five of one hundred navigations finish within two seconds. We should also define what happens to the slower runs." It addresses that point, not the missing turn in the supplied exchange.

[Return to the exercise, page 31](#)

E / Conversation

1. acceptance criterion

Turn 2. An acceptance criterion turns the vague performance request into a specific condition that can be evaluated.

03 / Answers and explanations / continued

2. usable state

Turn 4. The usable state requires the records and primary action to be available, avoiding an earlier but misleading loading milestone.

3. test fixture

Turn 6. The test fixture supplies controlled data and setup, here the fixed one-thousand-record dataset.

4. response-time threshold

Turn 8. The response-time threshold defines an acceptable duration; the case also sets a separate ceiling for every run.

5. Tail latency

Turn 10. Tail latency concerns the slower responses that can be hidden by an average and are bounded here by the five-second ceiling.

6. acceptance test

Turn 12. The acceptance test passes because the recorded run counts, ceiling, and no-error condition all satisfy the agreed rule.

7. test profile

Turn 14. The test profile identifies the environment and conditions under which the passing result was obtained.

8. Definition of Done

Turn 16. The Definition of Done is the wider agreed quality standard in Scrum, not a substitute label for one story-specific passing criterion.

9. happy path

Turn 18. The happy path is the intended successful sequence; covering it does not automatically address all exceptional or empty states.

10. completion evidence

Turn 20. Completion evidence records what has actually passed and what remains outstanding, supporting an accurate completion decision.

[Return to the conversation, page 33](#)

03 / Answers and explanations / continued

F / Accuracy and scope

F1. Why time until the primary action is usable?

A. The user must be able to perform the intended task, not merely see a loading shell.

The defined endpoint connects performance evidence to usable behavior instead of an earlier technical event.

[Return to the exercise, page 35](#)

F2. What can Eva say after the actual trial?

C. This criterion passed under profile N; other completion checks remain open.

The evidence supports the stated test result, not untested conditions or all remaining work.

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F / Guided speaking

1. 93

Tester: The fast-run count is 93.

Turn 1. The result records ninety-three runs within the two-second threshold.

2. 95

Product: The required fast-run count is at least 95.

Turn 2. The acceptance rule requires at least ninety-five runs within two seconds.

3. fails

Tester: The overall criterion fails.

Turn 3. The fast-run requirement is missed even though the five-second ceiling and error condition are met.

4. seconds

Product: The recorded timing unit is seconds.

Turn 4. All thresholds and observed durations in the briefing are expressed in seconds.

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03 / Answers and explanations / continued

F / Rebuild the exchange

1. Rebuild the exchange from "Quickly needs a clock and a test condition". Eva: "I can report that clearly, but I should not imply that every device, network, or dataset has been tested. The result belongs to the agreed setup." Omar: [missing response] Eva: "Can I mark the performance criterion passed and leave the story open? We still have completion checks outstanding, and I do not want to hide them." Which response belongs in the gap?

A. Keep the test profile visible. The conclusion applies to profile N and the defined data, not automatically to every environment a future user might have.

A Correct. This is Omar's response in turn 14. It connects Eva's preceding point with Eva's follow-up. The test profile identifies the environment and conditions under which the passing result was obtained.

B Not here. This line belongs to turn 6, after Eva says: "We should fix the data as well. Let us use the agreed one-thousand-record dataset so a smaller empty page does not stand in for the actual check." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 8, after Eva says: "For the main threshold, I propose that at least ninety-five of one hundred navigations finish within two seconds. We should also define what happens to the slower runs." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 12, after Eva says: "The trial produced ninety-six runs within two seconds. The other four finished within four point five seconds, and there were no errors." It addresses that point, not the missing turn in the supplied exchange.

[Return to the exercise, page 36](#)

04 / Answers and explanations

A / Read the situation

A1. How did signup count change?

A. It rose from 1,000 to 1,500, a 50% increase.

Five hundred additional signups divided by the original thousand gives a fifty-percent increase.

[Return to the exercise, page 37](#)

A2. How did completed setup count change?

D. It fell from 600 to 500.

The supplied completion counts show one hundred fewer completed setups in the later cohort.

[Return to the exercise, page 37](#)

A3. What makes the time windows comparable here?

B. Both cohorts have completed the same seven-day observation window.

The briefing explicitly says both cohorts are fully matured under the same seven-day definition.

[Return to the exercise, page 37](#)

D / Response choices

D1. Which summary represents both movements?

D. Signups increased, while completed setups and the setup-completion rate declined.

The supplied counts show acquisition growth together with fewer completions and a lower rate.

[Return to the exercise, page 41](#)

D2. What is the later setup-completion rate?

A. Approximately 33.33%

Five hundred completions divided by fifteen hundred signups equals one third.

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04 / Answers and explanations / continued

D3. A colleague needs the term for this meaning: Completion of the specified initial configuration steps. Which term fits?

C. setup completion

A Not here. drop-off: Loss of users between defined funnel steps. The usual combination is "locate funnel drop-off".

B Not here. event definition: The rules specifying when an analytics event is recorded. The usual combination is "maintain event definitions".

C Correct. setup completion: Completion of the specified initial configuration steps. The usual combination is "measure setup completion".

D Not here. leading indicator: A measure expected to precede a later outcome. The usual combination is "validate a leading indicator".

[Return to the exercise, page 41](#)

D4. Rebuild the exchange from "More signups, fewer completed setups". Alex: "Then the counts describe a real difference in the recorded outcome, not merely an incomplete observation window. We gained five hundred signups but lost one hundred completed setups." Imani: [missing response] Alex: "That is sixty percent before and about thirty-three point three three percent later. The decline in the rate is larger than the decline in the completion count." Which response belongs in the gap?

D. Correct. Keep the denominator with each rate. The earlier rate is six hundred divided by one thousand, while the later is five hundred divided by fifteen hundred.

A Not here. This line belongs to turn 10, after Alex says: "I have sixteen point six seven percent in my slide. That is the fall in completed setups, not the change in conversion rate. I need separate labels." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 2, after Alex says: "Signups increased from one thousand to fifteen hundred during the campaign period. I called that a complete success in the update, but you flagged the setup numbers." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 18, after Alex says: "The next analysis can compare relevant channels and user groups while keeping the seven-day definition fixed. We should not change the metric halfway through to recover a favorable result." It addresses that point, not the missing turn in the supplied exchange.

D Correct. This is Imani's response in turn 6. It connects Alex's preceding point with Alex's follow-up. The denominator is each cohort's eligible signup count, which must remain aligned with its own completions.

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04 / Answers and explanations / continued

E / Conversation

1. funnel

Turn 2. The funnel includes the later setup outcome as well as signup, so acquisition alone cannot represent the whole result.

2. mature cohort

Turn 4. A mature cohort has completed the defined observation period; both groups here have a full seven-day window.

3. denominator

Turn 6. The denominator is each cohort's eligible signup count, which must remain aligned with its own completions.

4. conversion rate

Turn 8. The conversion rate is the share of signups completing setup within seven days, not the raw completion count.

5. setup completion

Turn 10. Setup completion is the defined downstream event whose count and rate both declined in the supplied comparison.

6. channel mix

Turn 12. Channel mix concerns the composition of acquisition sources and is a possible explanation to investigate, not an established cause here.

7. drop-off

Turn 14. Drop-off identifies loss between defined funnel steps; step-level evidence is needed to locate the obstacle.

8. instrumentation

Turn 16. Instrumentation produces the event records; verifying those counts does not establish the causal explanation for their movement.

9. segmentation

Turn 18. Segmentation separates relevant groups for analysis while preserving the defined outcome and comparison basis.

04 / Answers and explanations / continued

10. attribution

Turn 20. Attribution assigns credit under a stated method; the uncontrolled cohort comparison does not isolate the campaign's causal contribution.

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F / Accuracy and scope

F1. What is the approximate rate decline in percentage points?

D. 26.67

The earlier sixty-percent rate minus approximately thirty-three point three three percent is about 26.67 points.

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F2. Which causal statement is supported?

C. The campaign's causal effect is not isolated by this comparison.

Verified observations do not remove the uncontrolled differences between the two periods.

[Return to the exercise, page 46](#)

F / Guided speaking

1. 50

Analyst: The earlier completion rate was 50 percent.

Turn 1. One hundred completions divided by two hundred signups equals fifty percent.

2. 20

Growth: The later rate was 20 percent.

Turn 2. Eighty completions divided by four hundred signups equals twenty percent.

3. 30

Analyst: The rate declined by 30 percentage points.

Turn 3. Fifty percent minus twenty percent equals thirty percentage points.

4. unestablished

Growth: The cause remains unestablished.

Turn 4. The briefing supplies descriptive cohort results but no established causal explanation.

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04 / Answers and explanations / continued

F / Rebuild the exchange

1. Rebuild the exchange from "More signups, fewer completed setups". Alex: "Can we break setup into steps for the next review? I can see the loss in the total, but not where people got stuck." Imani: [missing response] Alex: "The event counts have been verified for this comparison. That removes one data-quality concern, but it does not make the business explanation automatic." Which response belongs in the gap?

D. Locate the drop-off using the appropriate step-level evidence. A product problem, a changed audience, and other explanations need different supporting records.

A Not here. This line belongs to turn 16, after Alex says: "The event counts have been verified for this comparison. That removes one data-quality concern, but it does not make the business explanation automatic." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 8, after Alex says: "That is sixty percent before and about thirty-three point three three percent later. The decline in the rate is larger than the decline in the completion count." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 12, after Alex says: "Could the campaign have attracted people who were less ready to configure the product? That seems plausible, but we have not examined the composition of the new signups." It addresses that point, not the missing turn in the supplied exchange.

D Correct. This is Imani's response in turn 14. It connects Alex's preceding point with Alex's follow-up. Drop-off identifies loss between defined funnel steps; step-level evidence is needed to locate the obstacle.

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05 / Answers and explanations

A / Read the situation

A1. What are the observed conversion rates?

C. A is 10% and B is 12%.

One hundred and one hundred twenty conversions divided by one thousand users give ten and twelve percent.

[Return to the exercise, page 50](#)

A2. Which final-analysis prerequisites remain unmet?

A. Fourteen days and at least 10,000 users per arm

The case is on day one with one thousand users per arm, below both planned prerequisites.

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A3. Does B currently exceed the specified error guardrail?

A. No; 1.2% is below 3%.

The current error rate is below the stated threshold, which still remains active during the test.

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D / Response choices

D1. Which update is justified?

C. B leads descriptively on day one; the planned final-analysis requirements are unmet.

The update preserves the observed lead without converting interim counts into a final decision.

[Return to the exercise, page 54](#)

D2. What is the relative increase from 10% to 12%?

D. 20%

The two-point increase divided by the ten-percent control rate equals twenty percent.

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05 / Answers and explanations / continued

D3. A colleague needs the term for this meaning: Allocation to groups by a defined random process. Which term fits?

B. random assignment

A Not here. novelty effect: A temporary response associated with encountering something new. The usual combination is "assess novelty effects".

B Correct. random assignment: Allocation to groups by a defined random process. The usual combination is "verify random assignment".

C Not here. statistical power: The probability of detecting a specified effect under the test assumptions. The usual combination is "assess statistical power".

D Not here. guardrail: A predefined boundary protecting against unacceptable effects. The usual combination is "monitor the guardrail".

[Return to the exercise, page 54](#)

D4. Rebuild the exchange from "A day-one lead is not a final winner". Jules: "The plan calls for fourteen days and at least ten thousand eligible users per arm. We are short of both requirements after the first day." Priya: [missing response] Jules: "What if B is still ahead tomorrow and we call it then? I want to avoid waiting unnecessarily, but would that change the analysis?" Which response belongs in the gap?

C. This is a fixed-horizon test. We should not redefine its success decision because today's numbers look attractive, especially when no alternative early-success method has been approved.

A Not here. This line belongs to turn 12, after Jules says: "If that error rate later crosses the threshold, we follow the pause and investigation process. The fixed horizon does not require us to ignore that change." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 4, after Jules says: "The observed rates are twelve percent and ten percent. I can describe that as a two-percentage-point difference, or twenty percent relative to the control rate." It addresses that point, not the missing turn in the supplied exchange.

C Correct. This is Priya's response in turn 6. It connects Jules's preceding point with Jules's follow-up. A fixed-horizon test follows its preplanned endpoint and analysis rules rather than stopping whenever an interim result looks favorable.

D Not here. This line belongs to turn 18, after Jules says: "At the final readout, we will still need to understand whether the effect matters enough to justify rollout, not only whether the analysis meets its statistical decision rule." It addresses that point, not the missing turn in the supplied exchange.

[Return to the exercise, page 54](#)

05 / Answers and explanations / continued

E / Conversation

1. interim result

Turn 2. An interim result is observed before the planned endpoint; these day-one counts do not establish the final experiment decision.

2. control arm

Turn 4. The control arm is A, whose ten-percent rate provides the reference for the stated relative increase.

3. fixed-horizon test

Turn 6. A fixed-horizon test follows its preplanned endpoint and analysis rules rather than stopping whenever an interim result looks favorable.

4. stopping rule

Turn 8. The stopping rule determines when a decision is permitted; changing it after repeated favorable looks can invalidate the planned inference.

5. guardrail

Turn 10. The guardrail protects against unacceptable effects during the experiment and remains active before the final success analysis.

6. Sequential testing

Turn 12. Sequential testing is a method designed for valid repeated decisions; none is approved here for declaring early success.

7. sample ratio mismatch

Turn 14. A sample ratio mismatch can indicate a problem in allocation or data capture, so it must be assessed rather than ignored for a favorable outcome.

8. novelty effect

Turn 16. A novelty effect is a temporary response to the new experience and is one possible reason early behavior may not persist.

9. practical significance

Turn 18. Practical significance concerns whether the effect matters operationally and is distinct from the statistical evidence for a difference.

05 / Answers and explanations / continued

10. minimum sample

Turn 20. The minimum sample is ten thousand eligible users per arm, an unmet prerequisite that cannot be silently lowered after favorable results.

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F / Accuracy and scope

F1. What should happen if the defined guardrail is later exceeded?

A. Follow the pre-agreed pause and investigation rule.

The guardrail protects against unacceptable effects throughout the test and is distinct from the success analysis.

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F2. Why not stop for success simply because B leads today?

D. The fixed-horizon plan has no approved early-success method.

The correct decision follows the approved method; interim monitoring does not authorize opportunistic success stopping.

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F / Guided speaking

1. 8

Analyst: A converts 8 percent.

Turn 1. Forty conversions divided by five hundred users equals eight percent.

2. 10

Product: B converts 10 percent.

Turn 2. Fifty conversions divided by five hundred users equals ten percent.

3. 25

Analyst: The relative increase is 25 percent.

Turn 3. The two-point increase divided by the eight-percent control rate equals twenty-five percent.

4. undecided

Product: The final winner remains undecided.

Turn 4. The approved final-analysis prerequisites are unmet and no early-success method is approved.

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05 / Answers and explanations / continued

F / Rebuild the exchange

1. Rebuild the exchange from "A day-one lead is not a final winner". Jules: "Who is watching assignment and event quality while it runs? I do not want us discussing a conversion gain that turns out to be a logging problem." Priya: [missing response] Jules: "One day also gives us only a narrow time slice. Different weekday behavior or a temporary reaction to the new experience could affect what we see." Which response belongs in the gap?

A. Yes. Investigate a sample ratio mismatch if one is flagged, alongside the relevant event checks. The current checks are clear so far, which is a status rather than a permanent guarantee.

A Correct. This is Priya's response in turn 14. It connects Jules's preceding point with Jules's follow-up. A sample ratio mismatch can indicate a problem in allocation or data capture, so it must be assessed rather than ignored for a favorable outcome.

B Not here. This line belongs to turn 20, after Jules says: "My update will give the counts and observed lead, note the remaining time and sample requirements, and keep the rollout decision pending while monitoring continues." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 10, after Jules says: "I understand that success stopping needs discipline. But we should still watch for a poor experience while the test runs, rather than wait until the final day." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 16, after Jules says: "One day also gives us only a narrow time slice. Different weekday behavior or a temporary reaction to the new experience could affect what we see." It addresses that point, not the missing turn in the supplied exchange.

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06 / Answers and explanations

A / Read the situation

A1. Which readiness item is missing?

D. Migration notes delivered to Support and confirmed usable

The checklist requirement for Support's migration notes has not been met.

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A2. What does Friday 10 a.m. represent?

B. The planned launch review

The briefing identifies a review meeting, not a recorded authorization to launch.

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A3. What can Ana do now?

A. Assign note delivery and request Support review.

Ana can coordinate completion of the missing requirement but cannot invent its fulfillment or launch approval.

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D / Response choices

D1. Which readiness statement is accurate?

B. Engineering is ready; the required Support handoff remains incomplete.

The statement recognizes completed engineering work while preserving the separate open launch condition.

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D2. What evidence closes the stated Support item?

C. Delivery of the notes and the Support lead's usability confirmation

The checklist explicitly requires both delivery and confirmation that the recipient can use the notes.

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06 / Answers and explanations / continued

D3. A colleague needs the term for this meaning: Guidance explaining how users or teams move to a changed version or behavior. Which term fits?

B. migration notes

A Not here. rollback: Returning to a prior state under a defined recovery procedure. The usual combination is "rehearse rollback".

B Correct. migration notes: Guidance explaining how users or teams move to a changed version or behavior. The usual combination is "deliver migration notes".

C Not here. acceptance confirmation: A recipient's recorded acknowledgment that an input meets the agreed need. The usual combination is "obtain acceptance confirmation".

D Not here. runbook: Documented instructions for a defined operational process. The usual combination is "update the runbook".

[Return to the exercise, page 65](#)

D4. Rebuild the exchange from "The software is ready; the support handoff is not".

Rob: "Can we set Thursday at three as the delivery deadline and ask the Support lead to review the material before the Friday meeting?" **Ana:** [missing response]

Rob: "I will coordinate with the author and make sure Support can access the current document. A draft in a private folder would not meet the requirement." Which response belongs in the gap?

A. We can assign a dependency owner and that deadline. We should also confirm who performs the recipient review so delivery does not become an unowned handoff.

A Correct. This is Ana's response in turn 6. It connects Rob's preceding point with Rob's follow-up. The dependency owner is responsible for producing the missing input, making the delivery request actionable.

B Not here. This line belongs to turn 10, after Rob says: "I can show that we sent a file. Are you saying I also need the Support lead to confirm that it answers the migration questions?" It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 4, after Rob says: "I had treated the notes as a follow-up document rather than part of the release decision. The checklist makes that dependency explicit, so we need to close it." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 8, after Rob says: "I will coordinate with the author and make sure Support can access the current document. A draft in a private folder would not meet the requirement." It addresses that point, not the missing turn in the supplied exchange.

[Return to the exercise, page 65](#)

E / Conversation

1. launch checklist

Turn 2. The launch checklist includes the Support migration-note requirement as well as engineering and rollback checks.

06 / Answers and explanations / continued

2. Support enablement

Turn 4. Support enablement prepares the team to assist customers with the change and is a required part of readiness here.

3. dependency owner

Turn 6. The dependency owner is responsible for producing the missing input, making the delivery request actionable.

4. migration notes

Turn 8. Migration notes explain how to move to or handle the changed behavior, and must actually reach Support in usable form.

5. acceptance confirmation

Turn 10. Acceptance confirmation records that Support considers the delivered notes usable, not merely that an attachment was transmitted.

6. go/no-go decision

Turn 12. The go/no-go decision is the pending authorization point, distinct from scheduling the meeting or completing engineering work.

7. customer announcement

Turn 14. The customer announcement must reflect actual availability and approval, so it should not get ahead of the pending release decision.

8. contingency

Turn 16. The contingency states the response if the required delivery or confirmation is missing, preserving the authorized decision process.

9. readiness evidence

Turn 18. Readiness evidence shows that the actual checklist condition has been met and can be reviewed by the decision owner.

10. operational readiness

Turn 20. Operational readiness includes the people and processes needed to support the live change, not only the software's technical state.

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06 / Answers and explanations / continued

F / Accuracy and scope

F1. Which announcement decision fits the facts?

C. Keep the customer availability announcement pending the release decision.

No launch approval or waiver exists, so the announcement must not represent either as settled.

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F2. What should happen if confirmation is still missing at the review?

D. Present the unresolved gate and follow the authorized go/no-go process.

An unmet requirement must remain visible to the decision process rather than be silently bypassed.

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F / Guided speaking

1. delivery

Release: The guide reached Support, so we can record delivery.

Turn 1. Delivery is the recorded transfer of the guide, not acceptance of its contents.

2. confirmation

Support: You still need my usability confirmation before closing that item.

Turn 2. The recipient must confirm usability; sending the document does not establish this.

3. review

Release: We will take the open item to the launch review tomorrow.

Turn 3. Tomorrow is the scheduled review, not a recorded decision or completed handoff.

4. approval

Marketing: I will keep the availability announcement unsent until we have launch approval.

Turn 4. Approval is still absent, so Marketing cannot announce an authorized launch yet.

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06 / Answers and explanations / continued

F / Rebuild the exchange

1. Rebuild the exchange from "The software is ready; the support handoff is not".

Rob: "I will prepare the announcement but keep it unsent. Please flag the release decision; I should not infer it from the meeting invitation." Ana: [missing response]

Rob: "If the notes arrive late or Support finds gaps, we need an explicit response. Otherwise people may assume the engineering result overrides the unfinished handoff." Which response belongs in the gap?

C. Keep the customer announcement aligned with the decision. We can prepare coordinated messages now without telling customers a pending change is already approved or available.

A Not here. This line belongs to turn 8, after Rob says: "I will coordinate with the author and make sure Support can access the current document. A draft in a private folder would not meet the requirement." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 6, after Rob says: "Can we set Thursday at three as the delivery deadline and ask the Support lead to review the material before the Friday meeting?" It addresses that point, not the missing turn in the supplied exchange.

C Correct. This is Ana's response in turn 14. It connects Rob's preceding point with Rob's follow-up. The customer announcement must reflect actual availability and approval, so it should not get ahead of the pending release decision.

D Not here. This line belongs to turn 18, after Rob says: "I will ask the Support lead to identify any missing explanation promptly. The author can then address it and bring the final confirmation to the review." It addresses that point, not the missing turn in the supplied exchange.

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07 / Answers and explanations

A / Read the situation

A1. Which estimate fits inside the requested five-day window?

C. The three-day adapter estimate

Three days is within five, while ten exceeds it; feasibility and authorization still require the stated conditions.

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A2. What does the adapter duplicate?

B. An existing transformation

The supplied concern is duplicated transformation logic, creating a maintenance responsibility.

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A3. Which constraint applies to existing clients?

D. Their current behavior must be preserved.

The briefing explicitly requires existing clients to retain their current behavior.

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D / Response choices

D1. Which proposal accurately describes the adapter?

C. A three-day estimated single-client pilot with required ownership, monitoring, rollback, and expiry controls

The adapter's timing advantage comes with a narrow scope and explicit unresolved operating and retirement requirements.

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D2. Why does duplicated transformation logic matter?

D. Future changes may require both copies to stay consistent.

Maintaining the same transformation in two places creates a concrete consistency and ownership burden.

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07 / Answers and explanations / continued

D3. A colleague needs the term for this meaning: An addressable operation or resource in an interface. Which term fits?

C. endpoint

A Not here. versioning: Identifying and managing distinct interface or product versions. The usual combination is "plan API versioning".

B Not here. technical debt: Additional future work caused by expedient or inadequate design or implementation. The usual combination is "make technical debt explicit".

C Correct. endpoint: An addressable operation or resource in an interface. The usual combination is "document the endpoint".

D Not here. retirement plan: The agreed work and timing for removing an old or temporary path. The usual combination is "fund the retirement plan".

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D4. Rebuild the exchange from "A three-day adapter or a ten-day interface". Camille: "Then technical debt should be described as that future consistency work and the responsibility to retire the temporary path, not simply as engineers disliking a quick solution." Dev: [missing response] Camille: "The shared option also needs to preserve existing clients. We cannot change what they receive merely because the new customer has a different need." Which response belongs in the gap?

A. Exactly. Maintenance burden makes the consequence concrete. We can choose a bounded shortcut deliberately, but we should not present it as having no ongoing owner or cost.

A Correct. This is Dev's response in turn 6. It connects Camille's preceding point with Camille's follow-up. Maintenance burden is the ongoing effort and risk of keeping the temporary path correct, monitored, and consistent.

B Not here. This line belongs to turn 8, after Camille says: "The shared option also needs to preserve existing clients. We cannot change what they receive merely because the new customer has a different need." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 2, after Camille says: "The customer needs a response within five working days. We have a three-day adapter estimate and ten days for shared API work, both including tests. What can we responsibly offer?" It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 10, after Camille says: "We should distinguish a new optional capability from a change that older clients cannot handle. That will help me explain the engineering review in product terms." It addresses that point, not the missing turn in the supplied exchange.

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07 / Answers and explanations / continued

E / Conversation

1. adapter

Turn 2. The adapter is the narrow translation component estimated at three days, potentially serving a single-client pilot rather than the shared product.

2. duplicated logic

Turn 4. Duplicated logic means maintaining the same transformation in more than one place, creating future consistency work.

3. Maintenance burden

Turn 6. Maintenance burden is the ongoing effort and risk of keeping the temporary path correct, monitored, and consistent.

4. API contract

Turn 8. The API contract includes the supported inputs, outputs, and behavior on which existing consumers depend.

5. breaking change

Turn 10. A breaking change can invalidate existing client expectations even when the visible endpoint or field names remain similar.

6. blast radius

Turn 12. Blast radius is the scope of affected consumers and systems, which the single-client pilot must explicitly bound.

7. ownership

Turn 14. Ownership names responsibility for operating and maintaining the adapter after its initial implementation.

8. rollback plan

Turn 16. The rollback plan defines how the pilot can be reversed if necessary, rather than assuming temporary code is automatically easy to remove.

9. expiry condition

Turn 18. The expiry condition makes the thirty-day limit actionable through retirement or an explicit authorized extension.

07 / Answers and explanations / continued

10. retirement plan

Turn 20. The retirement plan specifies how the temporary path will be removed or replaced, so its future work is visible in the choice.

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F / Accuracy and scope

F1. What is a compatibility question?

C. Will existing clients receive behavior they can still handle under the current contract?

Compatibility concerns consumers' actual expectations and supported behavior, not labels or assumed adoption.

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F2. What should happen at the 30-day limit?

B. Follow the approved expiry or explicit extension process.

The time limit requires a controlled decision or retirement, not silent continuation or an invented replacement.

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F / Guided speaking

1. 2

Product: The adapter estimate is 2 days.

Turn 1. The supplied estimate for the narrow adapter is two days.

2. 8

Engineering: The shared option needs 8 days.

Turn 2. The broader interface work is estimated at eight days.

3. 21

Product: The adapter limit is 21 days unless extended.

Turn 3. The proposed expiry condition is twenty-one days with an explicit extension route.

4. approval

Engineering: Both options still need approval.

Turn 4. The briefing states that neither proposal has been approved.

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07 / Answers and explanations / continued

F / Rebuild the exchange

1. Rebuild the exchange from "A three-day adapter or a ten-day interface". Camille: "Who will support it after delivery? I do not want the team to assume the first implementer will maintain it indefinitely without agreed capacity." Dev: [missing response] Camille: "If we switch it off, what happens to that customer? Can we test the return path before offering the pilot, rather than work it out during an incident?" Which response belongs in the gap?

A. Assign ownership before approval. The proposal must identify who watches the signals, handles issues, and keeps the temporary transformation consistent with the existing one.

A Correct. This is Dev's response in turn 14. It connects Camille's preceding point with Camille's follow-up. Ownership names responsibility for operating and maintaining the adapter after its initial implementation.

B Not here. This line belongs to turn 18, after Camille says: "We proposed a thirty-day limit. At that point the adapter should expire or receive an explicit extension under an approved process, not remain by accident." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 10, after Camille says: "We should distinguish a new optional capability from a change that older clients cannot handle. That will help me explain the engineering review in product terms." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 12, after Camille says: "One client sounds contained, but can another client hit that path accidentally? I need to understand the boundary and how we will detect a problem." It addresses that point, not the missing turn in the supplied exchange.

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08 / Answers and explanations

A / Read the situation

A1. What is the shared quarterly objective?

A. Reduce support friction for existing paid teams

The briefing identifies support friction among existing paid teams as the agreed objective.

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A2. What does 40 of 100 mean?

D. Forty reviewed tickets belong to the relevant error category.

The count concerns reviewed tickets, not distinct customers, population prevalence, or retention effects.

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A3. Who makes the supplied decision?

C. Malik, the executive chair

The case explicitly assigns decision authority to the executive chair.

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D / Response choices

D1. Which opening is most decision-ready?

A. I recommend the two-week reliability pilot because it matches our agreed objective and documented ticket evidence.

The opening states the action, duration, objective fit, and evidence without personal attack or unsupported outcomes.

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D2. How should Iris describe the alternative?

A. It could support prospect conversations, but the supplied pipeline is uncommitted.

A fair comparison recognizes possible value while preserving the actual commitment status.

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08 / Answers and explanations / continued

D3. A colleague needs the term for this meaning: A defined basis for evaluating alternatives. Which term fits?

A. decision criterion

A Correct. decision criterion: A defined basis for evaluating alternatives. The usual combination is "agree the decision criterion".

B Not here. decision owner: The role authorized to make a specified choice. The usual combination is "identify the decision owner".

C Not here. decision boundary: The scope of what a particular approval does and does not authorize. The usual combination is "state the decision boundary".

D Not here. ticket category: A defined grouping of support records by issue type. The usual combination is "analyze the ticket category".

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D4. Rebuild the exchange from "Turn competing opinions into a decision request".

Malik: "What exactly does the evidence show? I heard someone say forty customers are affected, but the briefing refers to forty tickets out of one hundred reviewed."

Iris: [missing response] **Malik:** "Does that also mean the reliability work will improve retention? That would be useful, but I do not want the recommendation to promise a result we have not measured." Which response belongs in the gap?

A. It is a ticket category count, not forty distinct customers. The category appears in forty of the hundred reviewed tickets, and we should preserve that unit when presenting the problem.

A Correct. This is Iris's response in turn 6. It connects Malik's preceding point with Malik's follow-up. A ticket category groups support records; forty tickets in it do not establish forty distinct customers.

B Not here. This line belongs to turn 4, after Malik says: "State that objective explicitly. The executives have been using different ideas of success, which makes each option sound essential on its own terms." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 20, after Malik says: "The request is clear: one bounded pilot, an explicit trade-off, and a defined review. I will decide on that basis and record any conditions." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 10, after Malik says: "Sales will challenge that. What is the strongest case for their dashboard? Tell me what we give up, not just what supports your recommendation." It addresses that point, not the missing turn in the supplied exchange.

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E / Conversation

1. recommendation

Turn 2. The recommendation is a specific proposed action, the two-week reliability pilot, rather than a claim that approval already exists.

08 / Answers and explanations / continued

2. shared objective

Turn 4. The shared objective is reducing support friction for existing paid teams, providing the common basis for this decision.

3. ticket category

Turn 6. A ticket category groups support records; forty tickets in it do not establish forty distinct customers.

4. retention effect

Turn 8. A retention effect would require evidence about continued use and attribution, neither of which is established by the ticket count.

5. uncommitted pipeline

Turn 10. Uncommitted pipeline represents potential business without the relevant confirmed commitment, limiting the strength of the dashboard's current case.

6. displaced work

Turn 12. Displaced work is the sales-dashboard pilot that cannot proceed alongside A under the one-pilot capacity limit.

7. decision boundary

Turn 14. The decision boundary limits the requested authorization to the defined two-week pilot, not an unrestricted rollout.

8. success measure

Turn 16. The success measure defines how the pilot will be evaluated before results are interpreted, avoiding a retrospective change of criteria.

9. follow-up review

Turn 18. The follow-up review evaluates the pilot evidence after two weeks without guaranteeing a positive result in advance.

10. decision record

Turn 20. The decision record captures the authorized choice, scope, rationale, and conditions so teams do not infer more than was decided.

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08 / Answers and explanations / continued

F / Accuracy and scope

F1. What does approval of the requested pilot authorize?

B. The defined two-week pilot within its agreed scope

The request is explicitly bounded to one pilot and does not authorize unrelated work or establish outcomes.

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F2. Which statement about the ticket evidence is accurate?

B. It identifies a documented issue category but does not establish distinct-customer count or retention impact.

The supplied unit is reviewed tickets, and the broader customer and causal claims are expressly unestablished.

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F / Guided speaking

1. 25

Product: The error appears in 25 percent of reviewed tickets.

Turn 1. Twenty tickets divided by eighty reviewed tickets equals twenty-five percent.

2. tickets

Chair: The unit counted is tickets.

Turn 2. The evidence counts support records, not distinct customers or retained accounts.

3. 10

Product: The proposed pilot lasts 10 days.

Turn 3. The briefing defines the recommended pilot duration as ten days.

4. approval

Chair: The recommendation still requires my approval.

Turn 4. The product lead recommends the pilot, while final approval belongs to the chair.

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08 / Answers and explanations / continued

F / Rebuild the exchange

1. Rebuild the exchange from "Turn competing opinions into a decision request".

Malik: "How broad is the approval you want? I do not want a small pilot decision interpreted as permission to roll out a change across the entire customer base." Iris: [missing response] Malik: "We also need to agree what we will examine afterward. Otherwise each team may select whichever number makes its original preference look right." Which response belongs in the gap?

B. The decision boundary is the defined two-week pilot. We should record its scope and responsible owner, with any wider rollout requiring its own evidence and decision.

A Not here. This line belongs to turn 18, after Malik says: "Put the result review in for two weeks. Bring the same measures whether the pilot succeeds or disappoints; we need an actual decision at that meeting." It addresses that point, not the missing turn in the supplied exchange.

B Correct. This is Iris's response in turn 14. It connects Malik's preceding point with Malik's follow-up. The decision boundary limits the requested authorization to the defined two-week pilot, not an unrestricted rollout.

C Not here. This line belongs to turn 16, after Malik says: "We also need to agree what we will examine afterward. Otherwise each team may select whichever number makes its original preference look right." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 2, after Malik says: "We keep debating reliability for customers and a dashboard for prospects. What decision are you asking us to make?" It addresses that point, not the missing turn in the supplied exchange.

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Review 1 / Explanations

Cumulative review

1. A colleague needs the term for this meaning: A request for a particular implementation or feature. Which term fits?

A. solution request

A Correct. solution request: A request for a particular implementation or feature. The usual combination is "unpack the solution request".

B Not here. feasibility: Whether a solution can be built and operated under constraints. The usual combination is "assess feasibility".

C Not here. task success: Completion of a defined user task under stated conditions. The usual combination is "measure task success".

D Not here. discoverability: How readily users can find an available function. The usual combination is "improve discoverability".

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2. A colleague needs the term for this meaning: The value of the best displaced alternative. Which term fits?

D. opportunity cost

A Not here. confidence level: Stated certainty in an estimate or claim under its defined basis. The usual combination is "qualify the confidence level".

B Not here. product roadmap: A communication of intended product direction and priorities over time. The usual combination is "update the product roadmap".

C Not here. backlog ordering: Arranging planned work by current priority. The usual combination is "revise backlog ordering".

D Correct. opportunity cost: The value of the best displaced alternative. The usual combination is "explain opportunity cost".

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Review 1 / Explanations / continued

3. Rebuild the exchange from "One button request, two different problems". Morgan: "For the navigation cases, I would like to know where people started and which menu labels they tried. That could explain why the existing location was missed." **Li:** [missing response] **Morgan:** "How much investigation are we talking about? Support needs a date for an update, even if we cannot promise a fix yet." Which response belongs in the gap?

B. Trace the navigation path during the actual task. A clearer label, a different location, and an additional button are distinct options rather than interchangeable fixes.

A Not here. This line belongs to turn 4, after Morgan says: "We reviewed twelve tickets from last month. Eight users could not find the action. Four found it but did not have the required permission." It addresses that point, not the missing turn in the supplied exchange.

B Correct. This is Li's response in turn 10. It connects Morgan's preceding point with Morgan's follow-up. The navigation path records the sequence users followed and can reveal where they missed the existing action.

C Not here. This line belongs to turn 6, after Morgan says: "So the button might help eight of them, but it would leave the other four stuck. Can we keep those groups separate in the ticket summary?" It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 12, after Morgan says: "How much investigation are we talking about? Support needs a date for an update, even if we cannot promise a fix yet." It addresses that point, not the missing turn in the supplied exchange.

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Review 1 / Explanations / continued

4. Rebuild the exchange from "Three urgent requests, two delivery slots". Samir: "Please record the rationale for every sponsor. Different informal explanations could make a consistent decision look arbitrary." Nora: [missing response] Samir: "Then I will tell the commercial team that the refresh is deferred under the agreed rule, not canceled forever, and that the next discussion needs evidence rather than another urgency label." Which response belongs in the gap?

A. I will update the decision log with B and A, the capacity limit, and the review point for C. Your concern and the relevant evidence request will be recorded too.

A Correct. This is Nora's response in turn 18. It connects Samir's preceding point with Samir's follow-up. The decision log preserves the selected pair, shared rationale, capacity constraint, and conditions for reconsideration.

B Not here. This line belongs to turn 6, after Samir says: "The audit export has the October thirty-first customer commitment. That is different from my team's interest in showing a more current home page." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 10, after Samir says: "Could we include a smaller refresh alongside the other two? I want to test that option before telling the sponsor the request has moved out." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 2, after Samir says: "All three sponsors are calling their feature urgent. My team wants the home-page refresh included because we have already discussed it in several customer conversations." It addresses that point, not the missing turn in the supplied exchange.

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Review 2 / Explanations

Cumulative review

1. A colleague needs the term for this meaning: The agreed quality standard for a completed increment in Scrum. Which term fits?

D. Definition of Done

A Not here. percentile: A position in a distribution defined by a proportion of observations. The usual combination is "report the percentile basis".

B Not here. happy path: The intended successful sequence without exceptional conditions. The usual combination is "test the happy path".

C Not here. test fixture: Controlled data and setup used for a repeatable test. The usual combination is "prepare the test fixture".

D Correct. Definition of Done: The agreed quality standard for a completed increment in Scrum. The usual combination is "meet the Definition of Done".

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2. A colleague needs the term for this meaning: A cohort whose required observation period has elapsed. Which term fits?

D. mature cohort

A Not here. funnel: A defined sequence of steps toward a product outcome. The usual combination is "analyze the funnel".

B Not here. deduplication: Removing repeated records of the same defined event or entity. The usual combination is "apply deduplication".

C Not here. attribution: Assignment of credit for an outcome under a stated method. The usual combination is "qualify campaign attribution".

D Correct. mature cohort: A cohort whose required observation period has elapsed. The usual combination is "use mature cohorts".

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Review 2 / Explanations / continued

3. Rebuild the exchange from "Three urgent requests, two delivery slots". Samir: "Could we include a smaller refresh alongside the other two? I want to test that option before telling the sponsor the request has moved out." Nora: [missing response] Samir: "Then putting C back in would require removing one of the selected features. The trade-off should be stated plainly instead of hidden in an overloaded roadmap." Which response belongs in the gap?

C. We asked about a scope split, and the team says it is not feasible this cycle. We cannot count on a smaller item without a supported estimate and usable scope.

A Not here. This line belongs to turn 6, after Samir says: "The audit export has the October thirty-first customer commitment. That is different from my team's interest in showing a more current home page." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 2, after Samir says: "All three sponsors are calling their feature urgent. My team wants the home-page refresh included because we have already discussed it in several customer conversations." It addresses that point, not the missing turn in the supplied exchange.

C Correct. This is Nora's response in turn 10. It connects Samir's preceding point with Samir's follow-up. A scope split would divide work into useful smaller parts, but the briefing states it is not feasible this cycle.

D Not here. This line belongs to turn 18, after Samir says: "Please record the rationale for every sponsor. Different informal explanations could make a consistent decision look arbitrary." It addresses that point, not the missing turn in the supplied exchange.

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Review 2 / Explanations / continued

4. Rebuild the exchange from "More signups, fewer completed setups". Alex: "The next analysis can compare relevant channels and user groups while keeping the seven-day definition fixed. We should not change the metric halfway through to recover a favorable result." Imani: [missing response] Alex: "I will revise the update to say acquisition improved but the downstream completion outcome worsened. The campaign's overall contribution remains a question for analysis, not a settled success claim." Which response belongs in the gap?

A. Use segmentation with a clear purpose and consistent definitions. It can reveal where the problem is concentrated without pretending that every descriptive split proves causality.

A Correct. This is Imani's response in turn 18. It connects Alex's preceding point with Alex's follow-up. Segmentation separates relevant groups for analysis while preserving the defined outcome and comparison basis.

B Not here. This line belongs to turn 4, after Alex says: "I want to make sure the later group has had enough time. Comparing a new cohort with an older one could make completion look worse simply because users are still setting up." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 2, after Alex says: "Signups increased from one thousand to fifteen hundred during the campaign period. I called that a complete success in the update, but you flagged the setup numbers." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 10, after Alex says: "I have sixteen point six seven percent in my slide. That is the fall in completed setups, not the change in conversion rate. I need separate labels." It addresses that point, not the missing turn in the supplied exchange.

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Review 3 / Explanations

Cumulative review

1. A colleague needs the term for this meaning: The group receiving the changed experience. Which term fits?

D. treatment arm

A Not here. sample ratio mismatch: A difference from expected group allocation large enough to flag a validity concern. The usual combination is "investigate sample ratio mismatch".

B Not here. primary metric: The main preselected measure for the experiment decision. The usual combination is "specify the primary metric".

C Not here. minimum detectable effect: The effect size a planned test is designed to detect at stated power. The usual combination is "specify the minimum detectable effect".

D Correct. treatment arm: The group receiving the changed experience. The usual combination is "monitor the treatment arm".

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2. A colleague needs the term for this meaning: A defined alternative route around a known limitation. Which term fits?

C. workaround

A Not here. launch gate: A required condition before proceeding to a launch stage. The usual combination is "satisfy the launch gate".

B Not here. dependency owner: The person accountable for a required input. The usual combination is "name the dependency owner".

C Correct. workaround: A defined alternative route around a known limitation. The usual combination is "document the workaround".

D Not here. release readiness: The state of meeting requirements for a defined release decision. The usual combination is "assess release readiness".

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Review 3 / Explanations / continued

3. Rebuild the exchange from "More signups, fewer completed setups". Alex: "I have sixteen point six seven percent in my slide. That is the fall in completed setups, not the change in conversion rate. I need separate labels." Imani: [missing response] Alex: "Could the campaign have attracted people who were less ready to configure the product? That seems plausible, but we have not examined the composition of the new signups." Which response belongs in the gap?

D. Exactly. State setup completion in both forms when needed: five hundred completions and roughly thirty-three percent of signups. Neither should disappear behind the favorable acquisition headline.

A Not here. This line belongs to turn 6, after Alex says: "Then the counts describe a real difference in the recorded outcome, not merely an incomplete observation window. We gained five hundred signups but lost one hundred completed setups." It addresses that point, not the missing turn in the supplied exchange.

B Not here. This line belongs to turn 2, after Alex says: "Signups increased from one thousand to fifteen hundred during the campaign period. I called that a complete success in the update, but you flagged the setup numbers." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 18, after Alex says: "The next analysis can compare relevant channels and user groups while keeping the seven-day definition fixed. We should not change the metric halfway through to recover a favorable result." It addresses that point, not the missing turn in the supplied exchange.

D Correct. This is Imani's response in turn 10. It connects Alex's preceding point with Alex's follow-up. Setup completion is the defined downstream event whose count and rate both declined in the supplied comparison.

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Review 3 / Explanations / continued

4. Rebuild the exchange from "The software is ready; the support handoff is not".

Rob: "I will ask the Support lead to identify any missing explanation promptly. The author can then address it and bring the final confirmation to the review." **Ana:** [missing response] **Rob:** "Our status can now acknowledge the completed engineering checks while naming the remaining operational work. Marketing, Engineering, and Support will use the same wording." Which response belongs in the gap?

B. Attach that readiness evidence to the release record. It should show what was delivered and accepted, not merely that an action was assigned to someone.

A Not here. This line belongs to turn 6, after Rob says: "Can we set Thursday at three as the delivery deadline and ask the Support lead to review the material before the Friday meeting?" It addresses that point, not the missing turn in the supplied exchange.

B Correct. This is Ana's response in turn 18. It connects Rob's preceding point with Rob's follow-up. Readiness evidence shows that the actual checklist condition has been met and can be reviewed by the decision owner.

C Not here. This line belongs to turn 8, after Rob says: "I will coordinate with the author and make sure Support can access the current document. A draft in a private folder would not meet the requirement." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 14, after Rob says: "I will prepare the announcement but keep it unsent. Please flag the release decision; I should not infer it from the meeting invitation." It addresses that point, not the missing turn in the supplied exchange.

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Review 4 / Explanations

Cumulative review

1. A colleague needs the term for this meaning: The agreed inputs, outputs, and behavior of an interface. Which term fits?

B. API contract

A Not here. duplicated logic: The same rule or transformation maintained in multiple places. The usual combination is "track duplicated logic".

B Correct. API contract: The agreed inputs, outputs, and behavior of an interface. The usual combination is "preserve the API contract".

C Not here. breaking change: A change that can invalidate existing consumers' expectations. The usual combination is "identify a breaking change".

D Not here. expiry condition: A rule stating when a temporary option ends unless explicitly extended. The usual combination is "set the expiry condition".

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2. A colleague needs the term for this meaning: A customer organization or group with a paid product relationship. Which term fits?

C. paid team

A Not here. uncommitted pipeline: Potential business without the stated binding or accepted commitment. The usual combination is "qualify uncommitted pipeline".

B Not here. assumption check: Review of a premise on which a proposal depends. The usual combination is "conduct an assumption check".

C Correct. paid team: A customer organization or group with a paid product relationship. The usual combination is "support existing paid teams".

D Not here. executive narrative: A concise explanation connecting evidence, trade-offs, and a decision. The usual combination is "shape the executive narrative".

[Return to the exercise, page 100](#)

Review 4 / Explanations / continued

3. Rebuild the exchange from "The software is ready; the support handoff is not".

Rob: "I can show that we sent a file. Are you saying I also need the Support lead to confirm that it answers the migration questions?" **Ana:** [missing response] **Rob:** "We can keep Friday's ten o'clock meeting scheduled while those actions proceed. But the invitation should not be read as proof that the launch has already been approved." Which response belongs in the gap?

B. We need acceptance confirmation. Sent and accepted are different states here, and the readiness record should preserve both rather than assume silence means the document is sufficient.

A Not here. This line belongs to turn 4, after Rob says: "I had treated the notes as a follow-up document rather than part of the release decision. The checklist makes that dependency explicit, so we need to close it." It addresses that point, not the missing turn in the supplied exchange.

B Correct. This is Ana's response in turn 10. It connects Rob's preceding point with Rob's follow-up. Acceptance confirmation records that Support considers the delivered notes usable, not merely that an attachment was transmitted.

C Not here. This line belongs to turn 6, after Rob says: "Can we set Thursday at three as the delivery deadline and ask the Support lead to review the material before the Friday meeting?" It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 20, after Rob says: "Our status can now acknowledge the completed engineering checks while naming the remaining operational work. Marketing, Engineering, and Support will use the same wording." It addresses that point, not the missing turn in the supplied exchange.

[Return to the exercise, page 100](#)

Review 4 / Explanations / continued

4. Rebuild the exchange from "Turn competing opinions into a decision request".

Malik: "Put the result review in for two weeks. Bring the same measures whether the pilot succeeds or disappoints; we need an actual decision at that meeting." **Iris:**

[missing response] **Malik:** "The request is clear: one bounded pilot, an explicit trade-off, and a defined review. I will decide on that basis and record any conditions."

Which response belongs in the gap?

A. The follow-up review will show what changed, what remains uncertain, and what decision follows. The review date does not promise a retention result or automatic expansion.

A Correct. This is Iris's response in turn 18. It connects Malik's preceding point with Malik's follow-up. The follow-up review evaluates the pilot evidence after two weeks without guaranteeing a positive result in advance.

B Not here. This line belongs to turn 16, after Malik says: "We also need to agree what we will examine afterward. Otherwise each team may select whichever number makes its original preference look right." It addresses that point, not the missing turn in the supplied exchange.

C Not here. This line belongs to turn 14, after Malik says: "How broad is the approval you want? I do not want a small pilot decision interpreted as permission to roll out a change across the entire customer base." It addresses that point, not the missing turn in the supplied exchange.

D Not here. This line belongs to turn 2, after Malik says: "We keep debating reliability for customers and a dashboard for prospects. What decision are you asking us to make?" It addresses that point, not the missing turn in the supplied exchange.

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Additional case 1 / Explanations

Extended conversation

1. seat type

Turn 2. Seat type distinguishes editors, who count toward this proposed price, from viewers, who do not.

2. included allowance

Turn 4. The included allowance covers eight editor seats within the base price; only the additional three incur the stated extra charge.

3. proration

Turn 8. Proration concerns adjusting a charge for part of a billing period; the full-month example supplies no approved partial-month rule.

4. entitlement

Turn 12. An entitlement is a capability or allowance provided by the plan, distinct from the number of seats used to calculate its price.

5. Grandfathering

Turn 16. Grandfathering means retaining specified existing terms for an eligible group; whether it applies here remains a separate unapproved policy decision.

6. invoice preview

Turn 18. An invoice preview shows the proposed charge breakdown before final billing; it is not evidence that an unlaunched plan or unresolved policy is approved.

[Return to the conversation, page 103](#)

Transfer exchange

1. two

Billing: Ten editors use eight included seats and two additional seats.

Turn 1. Ten minus the eight included editor seats leaves two separately charged seats.

Additional case 1 / Explanations / continued

2. twenty-four

Product: That adds twenty-four dollars to the base charge.

Turn 2. Two additional editor seats multiplied by twelve dollars gives twenty-four dollars.

3. one hundred forty-four

Billing: The subtotal before tax is one hundred forty-four dollars.

Turn 3. The one-hundred-twenty-dollar base plus twenty-four dollars gives the stated subtotal.

4. proration

Product: Do not apply this full-month example to an unresolved proration rule.

Turn 4. The example contains no approved method for charging part of a month.

[Return to the conversation, page 105](#)

Additional case 2 / Explanations

Extended conversation

1. keyboard navigation

Turn 2. Keyboard navigation uses keys to move between and operate controls; a successful mouse click does not establish that this route is usable.

2. focus indicator

Turn 4. The focus indicator is the visible cue identifying the active control; here both it and the button are hidden behind the banner.

3. sticky banner

Turn 8. The sticky banner remains positioned over the focused control; changing the color of a completely covered button would not remove that obstruction.

4. acceptance criterion

Turn 12. The acceptance criterion defines the specific observable result required for this correction; passing it does not establish complete accessibility conformance.

5. reproduction steps

Turn 16. Reproduction steps describe how to observe the actual defect; a clean automated report does not disprove a manually reproducible keyboard problem.

6. regression test

Turn 18. A regression test checks that a previously identified problem stays corrected and that the change has not reintroduced the relevant failure.

[Return to the conversation, page 107](#)

Transfer exchange

1. retest

Product: The scan does not replace the keyboard retest.

Turn 1. The original interaction must be checked again; an automated result alone does not establish the correction.

Additional case 2 / Explanations / continued

2. zoom

Specialist: Repeat the recorded steps at the stated size and zoom.

Turn 2. The reproduction includes the zoom setting, which can change the layout and obstruction.

3. operable

Product: Confirm that Save is visible and remains operable.

Turn 3. A visible control must still work; appearance alone does not establish usable interaction.

4. conformance

Specialist: Report this correction without claiming complete conformance.

Turn 4. One corrected defect does not prove that the entire product meets all accessibility requirements.

[Return to the conversation, page 109](#)

Additional case 3 / Explanations

Extended conversation

1. usability task

Turn 2. A usability task sets a goal for the participant without supplying the interface actions whose discoverability the research is intended to examine.

2. leading instruction

Turn 4. A leading instruction directs the participant toward a particular action and can obscure whether the interface itself supports the task.

3. recruitment screener

Turn 8. The recruitment screener checks participant characteristics against the research question; role and frequency matter more here than general familiarity with the product.

4. moderator assistance

Turn 12. Moderator assistance is help supplied during the session; documenting it distinguishes independent task completion from completion after prompting or guidance.

5. informed consent

Turn 16. Informed consent requires participants to understand and agree to the proposed research and recording arrangements; attendance alone does not establish agreement to recording.

6. discussion guide

Turn 18. The discussion guide provides the planned tasks and neutral prompts, helping sessions address the same questions without prescribing participants' actions.

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Transfer exchange

1. prompt

Researcher: The participant finished after a prompt.

Turn 1. Naming the tab supplied guidance before completion, so the recorded outcome was not independent.

Additional case 3 / Explanations / continued

2. observation

Product: Change the result to assisted completion and retain the observation.

Turn 2. The record should preserve what happened rather than erase the session or pretend it was unassisted.

3. tab

Researcher: The next task should describe the goal without naming the tab.

Turn 3. Naming the interface location gives away the route the task is meant to investigate.

4. discoverability

Product: Do not use this outcome as proof of independent discoverability.

Turn 4. Completion after supplied navigation does not establish that users can find the control themselves.

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Find a phrase by purpose

Product Discovery and Problem Framing

Acknowledge the problem: We should address the export friction in these tickets.

Separate request from need: The button is one proposed solution, not the problem itself.

Identify the task: What were users trying to export, and from where?

[Full phrase bank, page 7](#)

Roadmaps and Prioritization

State the capacity: We have two slots for three one-slot features.

Name the shared rule: Fixed commitments come first, then the activation goal.

Protect the commitment: B addresses the recorded October 31 commitment.

[Full phrase bank, page 17](#)

User Stories and Acceptance Criteria

Clarify the user state: The story concerns an authorized editor.

Replace the adjective: Quickly needs a measurable timing rule.

Define the start: Start the clock at the navigation click.

[Full phrase bank, page 30](#)

Metrics, Funnels, and Product Analytics

Acknowledge acquisition: Signups increased from 1,000 to 1,500.

State the next outcome: Completed setups fell from 600 to 500.

Give the earlier rate: The earlier completion rate was 60%.

[Full phrase bank, page 40](#)

Find a phrase by purpose / continued

Experimentation and A/B Testing

Give the counts: A has 100 conversions and B has 120, each from 1,000 users.

State the rates: The observed rates are 10% and 12%.

Separate effect expressions: The difference is two percentage points, or 20% relative.

[Full phrase bank, page 53](#)

Release Readiness and Go-to-Market

Acknowledge completed work: Engineering checks are complete and rollback was rehearsed.

Name the open item: Support has not received the required migration notes.

Quote the actual gate: The notes must be delivered and confirmed usable.

[Full phrase bank, page 64](#)

Platform, APIs, and Technical Debt

Set out the options: The adapter is estimated at three days; the shared API work at ten.

Qualify the estimate: Both estimates include tests but are not delivery approvals.

Name the short-term scope: The adapter would serve one client's pilot.

[Full phrase bank, page 79](#)

Stakeholder Pushback and Executive Narrative

Lead with the action: I recommend the two-week reliability pilot.

Connect the objective: It directly addresses documented friction for existing paid teams.

State the evidence: The error category appears in 40 of 100 reviewed tickets.

[Full phrase bank, page 91](#)

Vocabulary index

A/B test[Lesson 05, p. 51](#)**acceptance criterion**[Lesson 03, p. 28](#), [Case 2, p. 106](#)**access barrier**[Lesson 01, p. 5](#)**adapter**[Lesson 07, p. 77](#)**API**[Lesson 07, p. 77](#)**assumption**[Lesson 01, p. 6](#)**attribution**[Lesson 04, p. 39](#)**backward compatibility**[Lesson 07, p. 77](#)**breaking change**[Lesson 07, p. 77](#)**channel mix**[Lesson 04, p. 39](#)**cohort**[Lesson 04, p. 38](#)**completion evidence**[Lesson 03, p. 29](#)**confidence level**[Lesson 02, p. 16](#)**control arm**[Lesson 05, p. 51](#)**cost of delay**[Lesson 02, p. 16](#)**customer announcement**[Lesson 06, p. 63](#)**day-of-week effect**[Lesson 05, p. 52](#)**decision criterion**[Lesson 08, p. 89](#)**decision owner**[Lesson 08, p. 90](#)**decision request**[Lesson 08, p. 89](#)**deduplication**[Lesson 04, p. 39](#)**Definition of Done**[Lesson 03, p. 28](#)**acceptance confirmation**[Lesson 06, p. 63](#)**acceptance test**[Lesson 03, p. 29](#)**activation**[Lesson 04, p. 38](#)**ambiguity**[Lesson 03, p. 29](#)**API contract**[Lesson 07, p. 77](#)**assumption check**[Lesson 08, p. 90](#)**backlog ordering**[Lesson 02, p. 16](#)**blast radius**[Lesson 07, p. 78](#)**capacity constraint**[Lesson 02, p. 15](#)**client-specific logic**[Lesson 07, p. 78](#)**cohort maturity**[Lesson 04, p. 39](#)**confidence interval**[Lesson 05, p. 52](#)**contingency**[Lesson 06, p. 63](#)**conversion rate**[Lesson 04, p. 38](#)**counterargument**[Lesson 08, p. 90](#)**customer friction**[Lesson 08, p. 89](#)**decision boundary**[Lesson 08, p. 90](#)**decision log**[Lesson 02, p. 16](#)**decision record**[Lesson 08, p. 90](#)**decision rule**[Lesson 02, p. 16](#)**deferred item**[Lesson 02, p. 15](#)**delivery slot**[Lesson 02, p. 15](#)

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References and publication notes

All cases, organizations, figures, and conversations are fictional teaching material, not transcripts. Communication practice does not replace qualified advice or current workplace procedures.

[1] Government Digital Service. Learning About Users and Their Needs.

Background on distinguishing user needs from proposed solutions and connecting needs to user stories. The cases are original software-product examples. Source checked 30 September 2026.

<https://www.gov.uk/service-manual/user-research/start-by-learning-user-needs>

[2] Schwaber, K., and Sutherland, J. The Scrum Guide, November 2020.

Background for Scrum-specific terms such as Product Goal, Product Backlog, and Definition of Done. The book does not assume every organization uses Scrum. Source checked 30 September 2026.

<https://scrumguides.org/scrum-guide.html>

[3] Microsoft Research. Patterns of Trustworthy Experimentation: During-Experiment Stage.

Background on monitoring experiments, early results, and appropriate statistical methods. The fictional fixed-horizon case is not a universal test-duration rule. Source checked 30 September 2026.

<https://www.microsoft.com/en-us/research/articles/patterns-of-trustworthy-experimentation-during-experiment-stage/>

[4] Google. API Improvement Proposal 180: Backwards Compatibility.

Background on interface compatibility and the effects of changes on clients. The API trade-off and estimates in this book are invented. Source checked 30 September 2026.

<https://google.aip.dev/180>

Companion course

The website offers the eight-lesson course and related practice. This book can be used independently. No audio access or external account is needed for its exercises.

<https://englishladder.com/efsp-software-product-management.html>

Clarify the problem. Make the trade-off explicit.

Eight product conversations moving from user problems and priorities to measurable acceptance, experiments, releases, and decisions.

Product Discovery and Problem Framing

Twelve tickets are support evidence, not a census of all users. Eight describe finding the action, and four describe permission. A new button might help the first group but would not itself give the second group authorization to export.

Roadmaps and Prioritization

With two slots and three one-slot features, selecting C displaces A or B. Under the supplied rule, B comes first because of the recorded commitment, followed by A because it supports activation. No evidence permits treating all three as simultaneously feasible.

User Stories and Acceptance Criteria

The empirical rule here is at least 95 of 100 runs within 2 seconds, with every run within 5 seconds and no errors. It is not an average-time target. A different percentile calculation convention should not silently replace the agreed count-based test.

Metrics, Funnels, and Product Analytics

Signups rose 50%, but completed setups fell by 100, about 16.67% relative to 600. Completion rates fell from 60% to about 33.33%, a decline of about 26.67 percentage points. Neither the count nor the rate alone describes the entire funnel.

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