

Foundations of Project Management — Practice Questions and Explained Answers

Robert Caldwell · Course practice · Version 1.0 · 5 October 2026

These 42 questions adapt the existing practice set in the [complete Foundations guide](#). They cover the six lectures, workbook v8.1, and the reviewed course conventions. They are study prompts, not recalled certification questions.

Concept questions use choices; calculation questions use numeric fields. Numeric grading covers the requested results, while the explanation addresses any reasoning or interpretation parts. Read the source-linked explanation after checking. Unanswered fields are skipped. Browser progress saves separately for this course.

Questions

A. Framework, authority, and initiation

1. A business produces the same item every day, then runs a one-time effort to redesign its production process. Which activity is operations and which is a project? Why?
2. What distinguishes a program from simply listing several projects together?
3. A marketing employee supports a project but must follow the marketing manager's priority when the managers disagree. What matrix type does Caldwell's comparison suggest?
4. An office offers optional templates; a second mandates templates and audits compliance; a third directly supervises PMs. Identify their PMO types.
5. Name the six constraints and give one reason a scope change could affect more than one.
6. A team gets along well, but the customer rejects its deliverable. Has team cohesion established overall project success?
7. What belongs in a high-level charter, and how do sponsor and PM responsibilities differ?
8. Use the course ROM rule for a \$12,000 estimate and a six-day estimate. What source now confirms the course range, and what remains unverified?
9. Why is a priority matrix with every constraint marked "highest" unhelpful?

B. Scope, responsibility, and estimates

10. Give the four basic communication-plan questions and the purpose of a kickoff.
11. Is "eight windows" product scope or project scope? What about purchasing and installing them?

12. What does hierarchical decomposition indicate? What is the lowest official WBS level in the course, and what is the code of accounts?
13. Expand RAM and the course's RACI labels. Why can the R differ from the person performing most of the labor?
14. Under the class's eight-hour workday rule, convert 12 and 18 effort-hours to duration. Why should you not assume this is every project's staffing formula?
15. $O = 4$, $M = 7$, $P = 16$ hours. Calculate triangular and PERT estimates.

C. Dependencies, scheduling, and resources

16. Name the relationships: baking before frosting; frosting preparation after baking starts; music continuing until the bride finishes; refrigeration continuing until pickup begins.
17. Can a dependency be both external and mandatory? Explain the two classifications.
18. In the 58-day example, identify the critical path. How much float is available on the design/build branch? Can you add design's six and build's six to obtain 12? Use finish-to-start links with zero lag, starting at day 0: requirements (17 days), then parallel branches of test procedures (29 days) and design (15 days) → build (8 days), then test (12 days) after both branches.
19. If design starts at day 23 instead of day 17, what happens to its finish and the project finish under the example's assumptions? Use finish-to-start links with zero lag, starting at day 0: requirements (17 days), then parallel branches of test procedures (29 days) and design (15 days) → build (8 days), then test (12 days) after both branches.
20. Compare fast tracking and crashing. What charter information helps choose?
21. A person has two evenly distributed commitments: 80 hours over four weeks and 30 over 1.5 weeks. Is the combined weekly load above a 40-hour threshold? What if the first commitment is 100 hours instead?
22. What is the difference between resource loading and addressing an overload? Why check float first?
23. Recognize the cost-estimating methods: prior similar-project total; rate per unit based on historical data; detailed estimates added upward.

D. Costs, risk, and execution

24. In the five-day budget, what are day 3's labor, daily total, and cumulative total? Which series goes into the S-curve? Day 3 has 16 laborer-hours at \$25/hour, 4 PM-hours at \$40/hour, and \$2,000 materials. Cumulative planned cost through day 2 is \$2,670.
25. A risk has a 20% probability of a \$15,000 impact; another a 5% probability of a 40-day delay. Compute their expected values. Can they be added into one unitless total?
26. What is qualitative risk analysis for, and what order does Caldwell teach for qualitative and quantitative analysis?
27. Identify the response: buy insurance; eliminate the threat by changing the plan; reduce its likelihood; send a risk beyond your authority to the appropriate manager; retain a risk with a backup plan.
28. Distinguish a residual risk, contingency plan, trigger, owner, and contingency reserve.

29. Put Tuckman's stages in order. Is performing guaranteed?

E. Reporting, change, and closing

30. Distinguish a progress report, status report, and forecast; monitoring, controlling, and executing.

31. What should happen when a requested feature changes scope, cost, and schedule? Who decides?

32. Why is closing more than completing the final construction task? What should a useful lessons-learned record contain?

F. Workbook additions

33. What is the workbook's value-centered project definition, and how does it relate to delivering a product/service/result?

34. Name the seven domains and the six delivery principles. How do principles differ from domains/focus areas?

35. What are business value realization and tailoring? Does using every available technique demonstrate good tailoring?

36. Distinguish progressive elaboration from rolling wave planning and state the five workbook RAM-development steps.

37. At a \$10,000 base, calculate the workbook's ROM, budgetary, and definitive ranges. Explain fixed vs variable duration and name its third listed type.

38. In the 58-day network, what are design's and build's free float? Why can design have six days total float but zero free float? Use finish-to-start links with zero lag, starting at day 0: requirements (17 days), then parallel branches of test procedures (29 days) and design (15 days) → build (8 days), then test (12 days) after both branches.

39. What do O, A, and I mean in the garden-shed sample RAM, and why would treating its I as "informed" be wrong?

40. What four steps finalize the baseline? List the six steps in the workbook's performance-control cycle.

41. Calculate the garden-shed sample's residual expected delay: $5\% \times 20$ days; $0\% \times 2$ days; $25\% \times 1$ day.

42. What outcome besides acceptance or rejection appears in the change flowchart, and can closing occur on an unfinished project?

Explained answer key

A. Framework, authority, and initiation

1. Routine repeated production is operations; the temporary redesign effort with a defined result is a project. See [§1: The project management framework](#).

2. Coordinated related work yields benefits unavailable from managing each separately. See [§1: The project management framework](#).

3. Weak matrix: functional-manager authority predominates. See [§2: Organizations, authority, and PMOs](#).
4. Optional assistance is supportive; enforced standards/compliance make the second controlling; direct project management makes the third directive. Supportive; controlling; directive. See [§2: Organizations, authority, and PMOs](#).
5. Scope, schedule, quality, budget, resources, risk. Added scope may require labor, time, money, or additional risk/quality work. See [§3: Success, constraints, and competencies](#).
6. No. Cohesion is one success measure; acceptance and other objectives still matter. See [§3: Success, constraints, and competencies](#).
7. Need/solution, objectives, alignment, high-level scope/priorities/assumptions and early estimates. Sponsor authorizes/supports/funds; PM manages day-to-day work. See [§4: Initiation: business need, charter, and priorities](#).
8. ROM uses half to twice the base in the course: $\$12,000/2 = \$6,000$; $\$12,000 \times 2 = \$24,000$; $6/2 = 3$ days; $6 \times 2 = 12$ days. $\$6,000$ – $\$24,000$; 3–12 days. The workbook confirms this course range; independent certification alignment remains unverified. See [§4: Initiation: business need, charter, and priorities](#).
9. It does not identify which constraint can move when tradeoffs are unavoidable. See [§4: Initiation: business need, charter, and priorities](#).

B. Scope, responsibility, and estimates

10. Who, what, when, how. Kickoff establishes shared goals, roles, expectations, and communication. See [§5: Team, stakeholders, communication, and kickoff](#).
11. Feature: product scope. Required work: project scope. See [§6: Scope planning and the WBS](#).
12. WBS; work package; unique component-identification system. See [§6: Scope planning and the WBS](#).
13. Responsibility Assignment Matrix; Responsible, Approver/Authority, Contributor, Informed in this course variant. R ensures completion and may coordinate contributors. The embedded workbook image confirms these course A/C labels. See [§7: Assigning responsibility: RAM and RACI](#).
14. Round positive effort up to whole eight-hour workdays: $\text{ceil}(12/8) = 2$ and $\text{ceil}(18/8) = 3$. This is the class convention, not an assumption about every staffing arrangement. Two and three whole workdays. Resource availability, staffing, calendar, and wait time can alter the relationship. See [§8: Estimating effort, duration, and uncertainty](#).
15. Triangular = $(4+7+16)/3 = 9$. PERT = $(4+4 \times 7+16)/6 = 8$; the most-likely estimate receives four weights. Triangular = $27/3 = 9$ hours. PERT = $(4 + 28 + 16)/6 = 8$ hours. See [§8: Estimating effort, duration, and uncertainty](#).

C. Dependencies, scheduling, and resources

16. FS links A's finish to B's start; SS links their starts; FF links their finishes; SF links A's start to B's finish. FS; SS; FF; SF. See [§9: Dependencies, leads, and lags](#).
17. Yes. External describes control/boundary; mandatory describes whether the logic is required. See [§9: Dependencies, leads, and lags](#).

18. The test-procedures path is $17+29+12 = 58$ days; the design/build path is $17+15+8+12 = 52$. Their six-day difference is one shared allowance along the shorter branch. Requirements → test procedures → test = 58 days. Six days on the other branch; shared allowance, not 12. See [§10: Critical path, early/late dates, and float](#).

19. Design: $23+15 = 38$. Build: $38+8 = 46$. Test waits for both branches, so its finish remains $46+12 = 58$. The delayed branch uses the six-day shared allowance. Design finishes day 38; build can finish day 46; test still finishes day 58. All six available days are consumed. See [§10: Critical path, early/late dates, and float](#).

20. Overlap with rework risk versus added resources/cost. Constraint priorities and actual dependencies help select a feasible option. See [§11: Gantt charts and schedule compression](#).

21. First load: $80/4 + 30/1.5 = 20+20 = 40$. Second load: $100/4 + 30/1.5 = 25+20 = 45$, which exceeds 40 by 5. $20 + 20 = 40$ **hours/week**, at threshold. With $100/4 = 25$, total = **45**, five hours above capacity. See [§12: Resource loading and leveling](#).

22. Loading reveals assigned demand. Leveling/remedies address excess demand. Available float may shift noncritical work without extending the finish. See [§12: Resource loading and leveling](#).

23. A similar prior-project total is analogous. A calibrated historical rate per unit is parametric. Adding detailed estimates upward is bottom-up. Analogous; parametric; bottom-up. See [§13: Cost estimating, budgets, and the S-curve](#).

D. Costs, risk, and execution

24. Labor: $16 \times \$25 + 4 \times \$40 = \$560$. Daily total: $\$560 + \$2,000 = \$2,560$. Cumulative: $\$2,670 + \$2,560 = \$5,230$. The S-curve uses cumulative planned cost, rather than only day 3 spending. Labor \$560; day total \$2,560; cumulative \$5,230. Plot cumulative planned cost against time. See [§13: Cost estimating, budgets, and the S-curve](#).

25. $0.20 \times \$15,000 = \$3,000$; 0.05×40 days = 2 days. Adding them into one number would mix incompatible units. **\$3,000** and **2 days**. Retain separate units. See [§14: Risk analysis and response planning](#).

26. Rank/prioritize probability and impact. Qualitative before quantitative in the course sequence. See [§14: Risk analysis and response planning](#).

27. Insurance transfers financial exposure; eliminating the threat is avoidance; reducing likelihood is mitigation; referring beyond your authority is escalation; retaining risk with backup action is active acceptance with contingency. Transfer; avoid; mitigate; escalate; active acceptance with contingency. See [§14: Risk analysis and response planning](#).

28. Remaining risk; backup action; observable signal; assigned watcher/responsible person; retained-risk capacity/funds. See [§14: Risk analysis and response planning](#).

29. Forming, storming, norming, performing, adjourning. No; talent, cohesion, time, and retention matter. See [§15: Execution and team development](#).

E. Reporting, change, and closing

30. Change over an interval; current snapshot; future projection. Collect/report; analyze/correct; do the work. See [§16: Reporting, monitoring, and controlling](#).

31. Formal request, log, authorized review of benefit/impacts, accept/reject/defer, notify the requester, and integrate accepted changes. CCB or designated authority decides. See [§17: Change control](#).

32. Final reporting, actuals, documentation and archiving remain. Capture good practices and improvements with enough context for future use. See [§18: Closing and lessons learned](#).

F. Workbook additions

33. A temporary initiative in a unique context undertaken to create value. Outputs are a way to produce value; acceptance alone need not prove benefits were realized. See [§1: The project management framework](#).

34. Domains: governance, scope, schedule, finance, stakeholders, resources, risk. Principles: holistic view; value; embedded quality; accountable leadership; sustainability; empowered culture. Principles guide behavior; domains group activities; focus areas organize major functions. See [§1: The project management framework](#).

35. Realize the intended benefit after delivery; deliberately adapt approach/governance/processes to the work. No—choose what fits. See [§1: The project management framework](#).

36. Refine as information improves; detail the near phase while later work remains broad. RAM: list skills, select people, discuss roles, gain commitments, document. See [§1: The project management framework](#), [§7: Assigning responsibility: RAM and RACI](#).

37. ROM: \$10,000×0.5 to ×2. Budgetary: ×0.90 to ×1.25. Definitive: ×0.95 to ×1.10. These are the workbook ranges for this course. \$5,000–\$20,000; \$9,000–\$12,500; \$9,500–\$11,000. Fixed does not shorten with added people; variable may. Level of effort is listed but not explained in this workbook. See [§8: Estimating effort, duration, and uncertainty](#).

38. Design EF = 32 equals build ES = 32, so design free float is 0. Build EF = 40; test ES = 46, so build free float is 6. Total float protects the project finish; free float protects the successor early start. Design 0; build 6. Delaying design delays build's early start while six shared days still protect project finish. See [§10: Critical path, early/late dates, and float](#).

39. Owner, Approval, Implementer. It is a different letter model whose legend defines I as doing work. See [§7: Assigning responsibility: RAM and RACI](#).

40. Validate, approvals, archive, communicate. Control: collect actuals/forecasts; compare; analyze cause/impact; correct; revise as authorized; report. See [§14: Risk analysis and response planning](#), [§16: Reporting, monitoring, and controlling](#).

41. $0.05 \times 20 + 0 \times 2 + 0.25 \times 1 = 1 + 0 + 0.25 = 1.25$ days. $1 + 0 + 0.25 = \mathbf{1.25 \text{ days}}$, the sample's schedule contingency. See [§14: Risk analysis and response planning](#).

42. Defer; accepted changes are notified and integrated. Yes—closing can terminate a project before completion, or close a phase/contract. See [§17: Change control](#), [§18: Closing and lessons learned](#).

Using your results

Review missed concepts using their linked guide sections and cited recordings/workbook pages. Recompute calculations from the givens rather than memorizing their answers. The score checks concept choices and numeric results; explain the remaining reasoning out loud or in your own notes.

Course qualifications matter: ROM ranges, eight-hour rounding, RACI labels, and the FS-only zero-lag network are the stated course conventions/examples. Independent certification alignment remains unverified. The workbook lists level of effort without defining it; that remaining gap is retained in the explanation.