Solutions

Marking: **M1** a correct method, **A1** the correct answer, **B1** an independent mark.

Each answer shows the steps, then the **result**.

2.1

paths: A–B–D–F = 10, A–B–E–F = 11, A–C–E–F = 10

critical path A–B–E–F

11 days

2.2

C: $11 - 10 =$ **1** day

D: **1** day

2.3

$5 \times 4/2 =$ **10**; $8 \times 7/2 =$ **28**

new people need training from the busy ones, and more paths mean more meetings, so the project gets later at first

2.4

likelihood low or medium, impact high

action: pair a second person on database work and write a short setup guide; owner named

3.1

(a) planned $40 \div 5 = 8$ points a week; actual $(40 - 24) \div 3 \approx$ **5.3**

(b) $24 \div 5.3 \approx 4.5$ more weeks, so about week **7.5**, not week 5

(c) stories larger than estimated; setup and learning time, or a blocked task

(d) cut or simplify Could items with the client now, so the Must items finish by week 5

3.2

(a) with one change they can tell whether it worked

(b) e.g. “every pull request reviewed within one day”; measure the mean review time on the board next sprint

(c) mark blocked tasks on the board at once; a blocker older than two days is raised at the next stand-up with the supervisor

3.3

(a) week 1: $6 \times 4/5 = 4.8$; week 2: 6; about **10.8** points

(b) 18 points left is far more than 10.8: about 7 points will not fit

(c) cut scope: finish the Must stories, drop Could ones; or keep scope and demo some parts unfinished, which risks a broken demo

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(d) say no for this release: put it in the backlog for later, and explain the trade-off

(e) agree with the client which Must stories make up about 10 points, and freeze scope; polish and test those for a reliable demo, and list the rest as next steps