

1. As part of a class assignment, Naomi and Omar are creating and launching an app for the school's tablets.

The table below shows:

- The different steps required to create and launch the app
- The time required to complete each step
- The prerequisite step(s) to be carried out before starting a step

Step	Description	Time Required (days)	Prerequisite Steps
A	Brainstorming for an idea of a useful app	5	None
B	Researching already existing apps	10	A
C	Putting together a programming team	10	B
D	Designing and sketching	7	B
E	Coding and building a prototype	12	C
F	Designing the user interface	14	C
G	Designing promotional ads	6	D and F
H	Testing the app for bugs and glitches	3	E
I	Revising and making improvements	11	G and H
J	Posting promotional ads	2	I
K	Finalizing details to launch the app	3	J
L	Launch the app	none	K

Unfortunately, Naomi and Omar underestimate the number of days it will take to test the app for glitches (step H). It will take four times as many days as they had originally planned.

By how many days will this delay increase the minimum time required to complete all the steps?

2. Design your own critical path question. You must have at least 8 steps. Provide the scenario, the table of steps, description, time required, and prerequisite steps. Also provide the solution.