Critical Path Cheat Sheet and Test Hacks

WARNING IF YOU DO NOT KNOW CRITICAL PATH METHOD THESE HACKS WILL NOT HELP YOU. YOU MUST FIRST BEABLE TO DO THE EXERCISES IN OUR WORKBOOK ON YOUR OWN. THEN AND ONLY THEN CAN YOU CHEAT LIKE BILL BELICHICK ****

1. **The Project Float will be equal to 0 if no deadline is provided**

2. **The Critical Path is the chain of activities that takes the longest to complete**

3. **The Total Float for all activities on the Critical Path will always be equal to the Project Float**

4. **If an activity on the critical path is delayed it will delay the earliest end date of the project (PED)**

5. **The Total Float for all critical path activities will be the lowest Total Float on the diagram**

6. **The Free Float for all critical path relationships is always 0**

7. **The Free Float of an activity will always be equal or less than that activities Total Float**

Critical Path Formulas

ES= No equation needed
EF=ES+D-1

LF=No equation needed
LS= LF-D+1

Project Float= PED-Deadline (one per diagram)
Total Float= EF-ES (one per box)
Free Float= ES of the next activity - the EF+1 of the previous activity (one per arrow)

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1. What is the Critical Path?

If asked first look at the answer block there will be four paths listed add the activity durations for each path together and compare them to one another the longest duration is the critical path (Warning- make sure it is an actual path on the diagram)

You are the project manager for bla
Based of the diagram below what is the critical path?
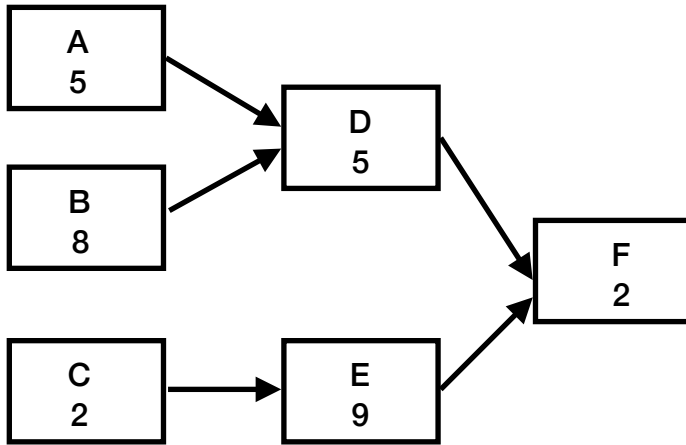
A. A-D-F

B. C-E-F

C. A-F-E

D. B-D-F

Step1. Add the duration together for each path
A+D+F=
5+5+2=12

C+E+F=
2+9+2=13

A+F+E=
5+2+9=16

**B+D+F=
8+5+2=15**

Step 2. Make sure the longest path is actually on the diagram. In this case answer C is mathematically longer but it isn't a path on the diagram so answer D is the correct answer.
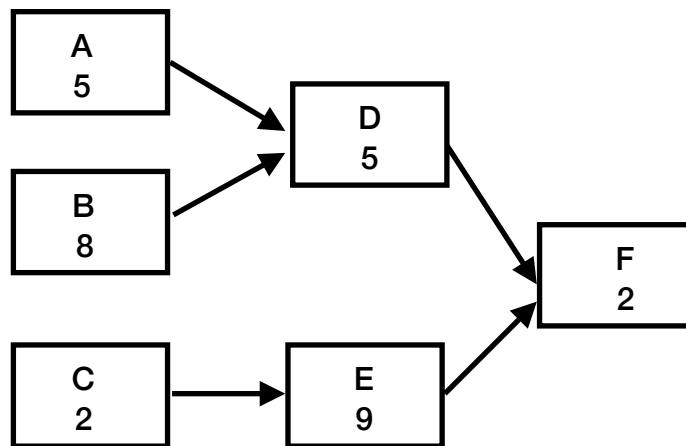
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2. What is the total float of activity x?

First is activity x on the critical path is so and no deadline is given the answer is 0 otherwise you might have to do some math.

You are the project manager for bla
Based of the diagram below what is the total float of activity B?

A. 8

B. 3

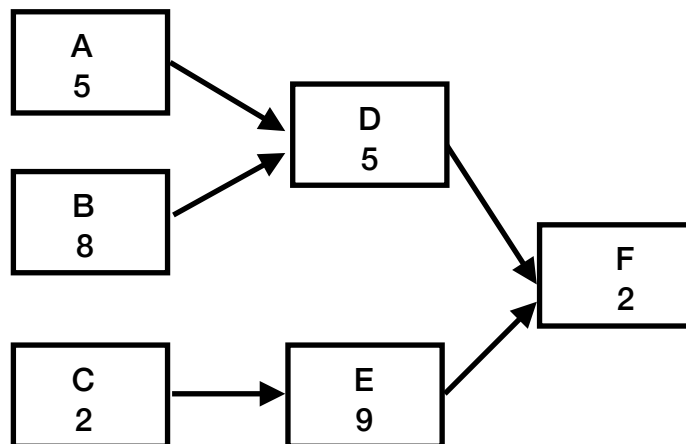C. 0

D. 2

Step1. Is a deadline given? NO
Step 2. Is activity B on the Critical Path? Yes
Step 3. Click answer C activity B has a TF of 0

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3. What is the Total Float along the Critical Path

If no dead line the answer is 0 if a deadline exist determine the PED by looking at the different paths add the durations together the longest total duration of any path is the critical path and the total duration is the PED then just subtract it from the deadline.

You are the project manager for bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla
Your project has a deadline of day 20. Based of the diagram below what is the total float along the Critical Path?

A. 8

B. 5

C. 0

D. 2

Step1. Is a deadline given? Yes (if no the answer is 0)
Step 2. What is the PED? Day 15 (found by adding the activity durations together for each path to find the longest path)
Step 3. Subtract the PED from the Deadline given (20-15=5)