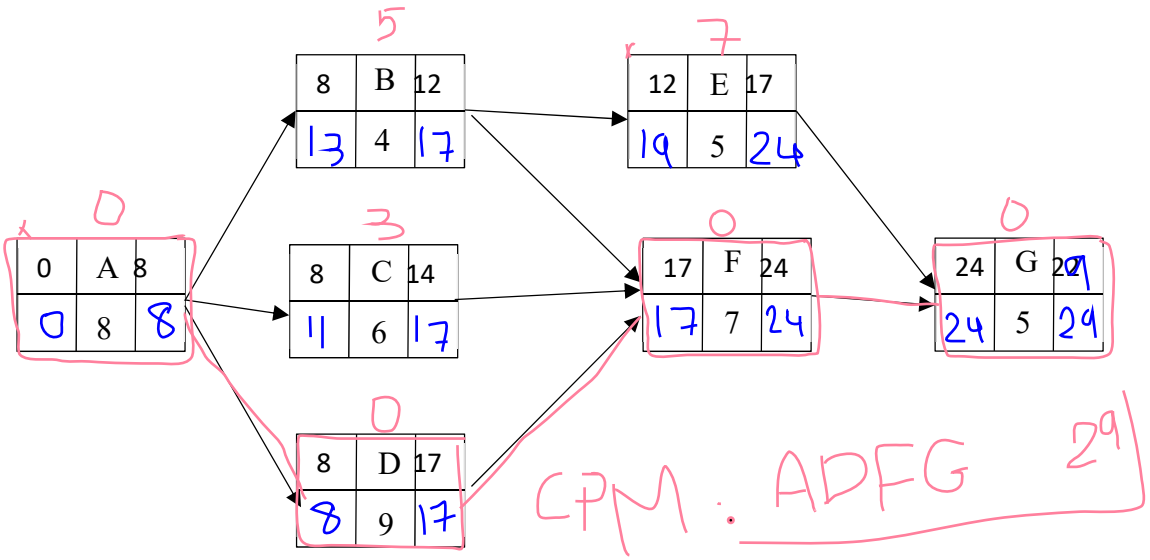
CPM

For the following schedule network, perform the CPM calculations including total floats, and identify critical path(es).

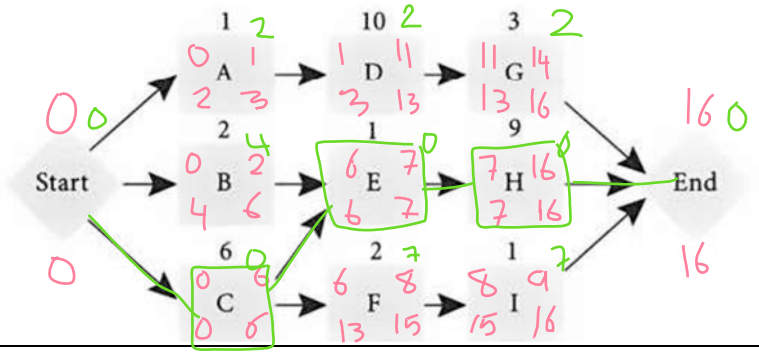


22. Based on the following, if you needed to shorten the duration of the project, which activity would you try to shorten?

Activity	Preceding Activity	Duration in Weeks
Start	None	0
A	Start	1
B	Start	2
C	Start	6
D	A	10
E	B, C	1
F	C	2
G	D	3
H	E	9
I	F	1
End	G, H, I	0

Answer:

Paths	Duration in Weeks
Start, A, D, G, End	14 = 1 + 10 + 3
Start, B, E, H, End	12
Start, C, E, H, End	16
Start, C, F, I, End	9



Example 3.7

Draw the arrow network for the project given next.

Activity	IPA	Activity	IPA
A	–	H	C, D
B	A	I	D
C	A	J	E, F, G
D	A	K	F, G, H
E	B	L	H, I
F	B, C	M	K, L
G	C		

Solution

This example is more complicated than the previous ones, requiring eight dummies, as shown in Figure 3.7. However, real projects with hundreds or thousands of activities, are far more complicated.

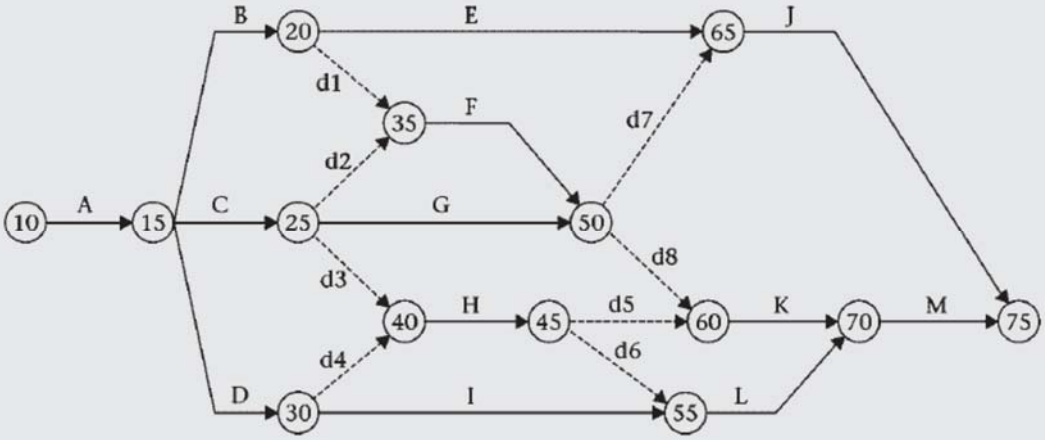


Figure 3.7 Solution for example 3.7