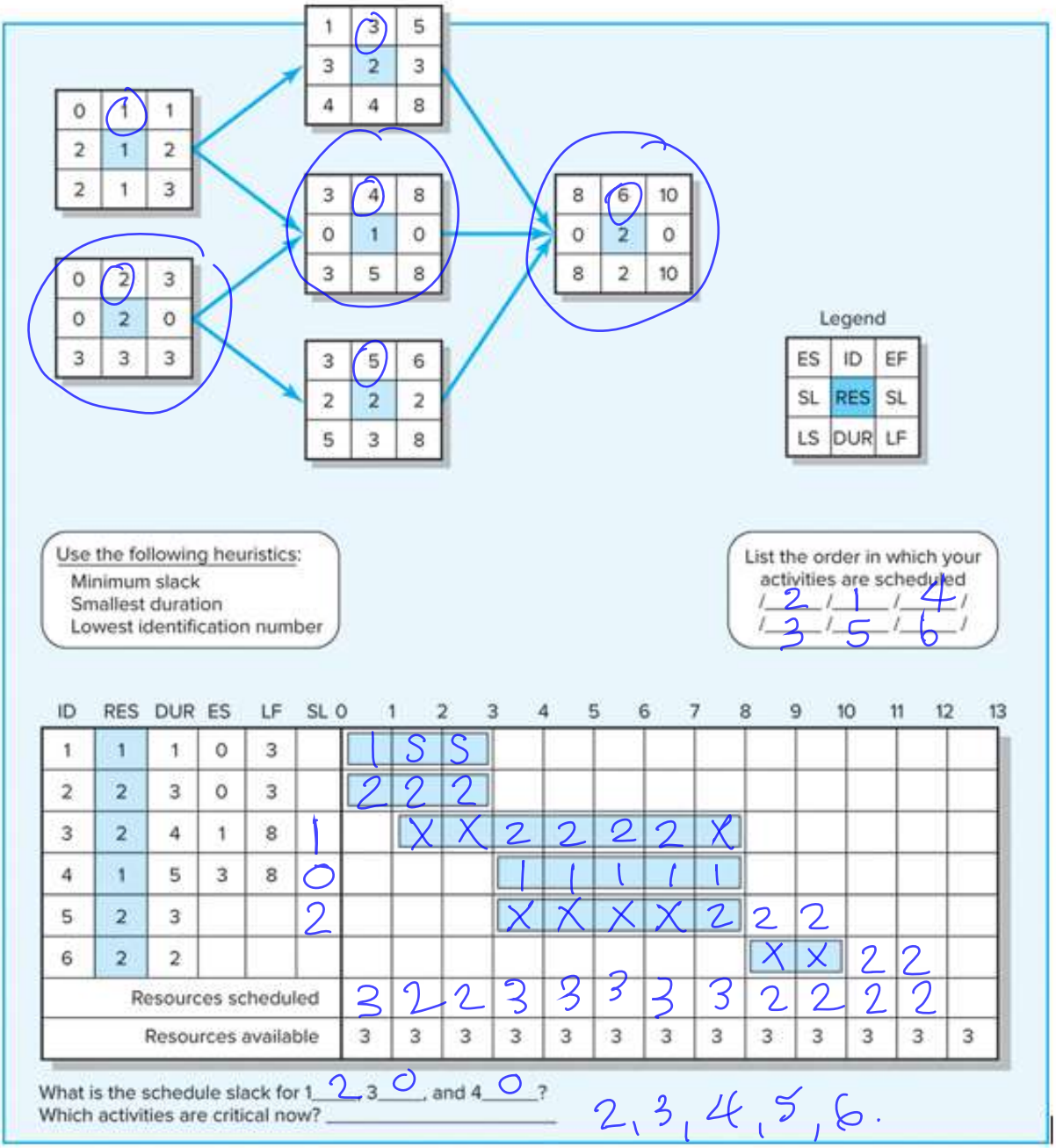
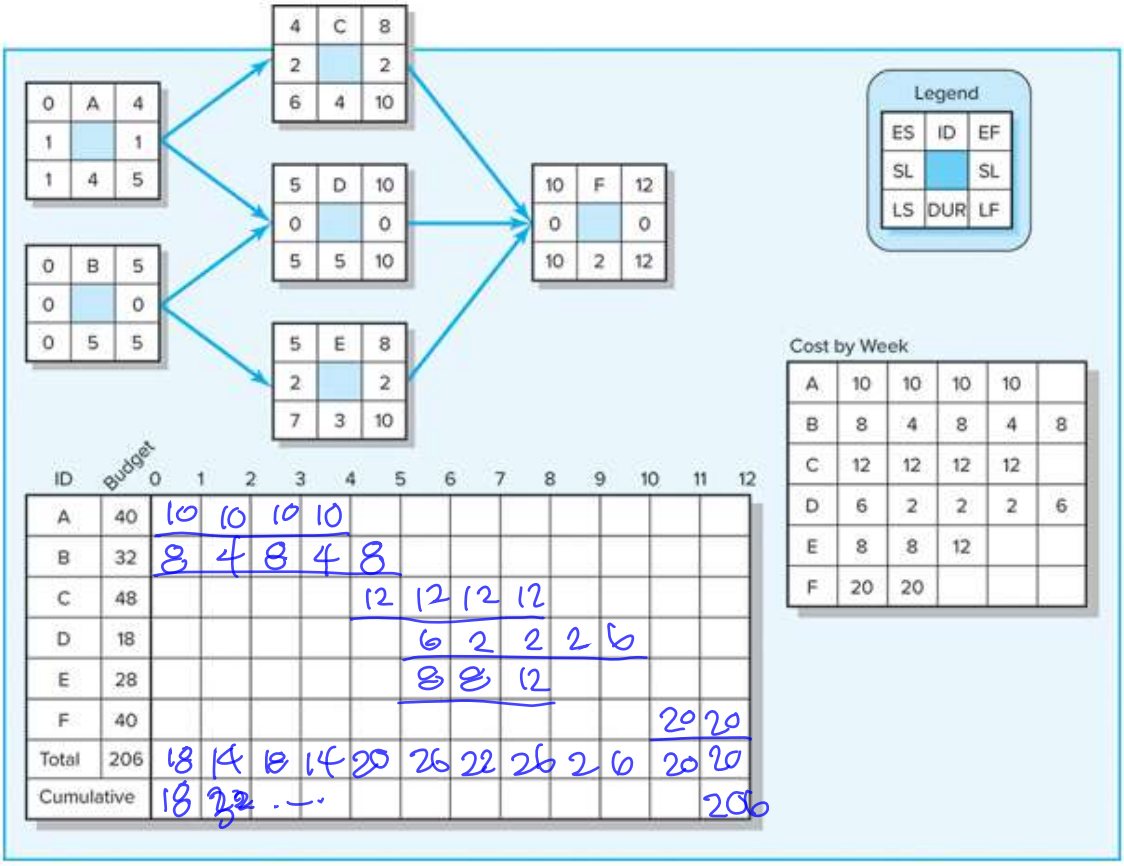
Develop a resource schedule in the loading chart that follows. Use the parallel method and heuristics given. Three of the resource skills are available. How has slack changed for each activity? Has the risk of being late changed? How?



ID	RES	DUR	ES	LF	SL	0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1	1	0	3		1	S	S											
2	2	3	0	3		2	2	2											
3	2	4	1	8	1		X	X	2	2	2	2	X						
4	1	5	3	8	0				1	1	1	1	1						
5	2	3			2				X	X	X	X	2	2	2				
6	2	2												X	X	2	2		
Resources scheduled						3	2	2	3	3	3	3	3	2	2	2	2		
Resources available						3	3	3	3	3	3	3	3	3	3	3	3	3	

What is the schedule slack for 1 2 3 0 and 4 0 ?
Which activities are critical now? 2, 3, 4, 5, 6.

Given the time-phased work packages and network, complete the baseline budget form for the project.



Cost by Week

A	10	10	10	10	
B	8	4	8	4	8
C	12	12	12	12	
D	6	2	2	2	6
E	8	8	12		
F	20	20			

ID	Budget	0	1	2	3	4	5	6	7	8	9	10	11	12
A	40	10	10	10	10									
B	32	8	4	8	4	8								
C	48					12	12	12	12					
D	18						6	2	2	2	6			
E	28						8	8	12					
F	40											20	20	
Total	206	18	14	18	14	20	26	22	26	2	6	20	20	
Cumulative		18	32	.	.								206	

Crashing (Optimum Time-Cost Schedule) Exercise

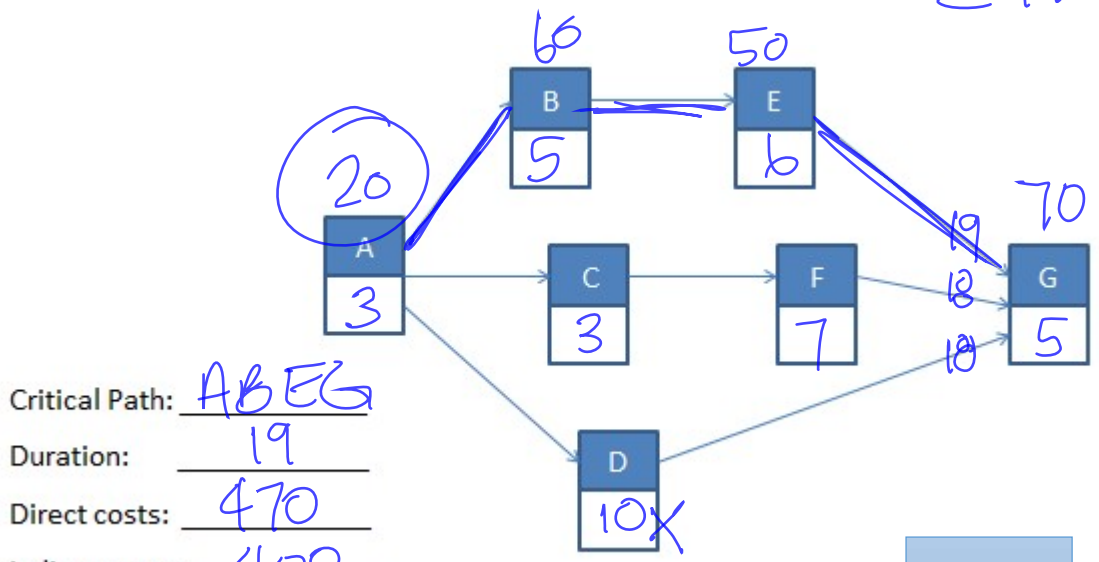
Assume the network and data that follow. Compute the total direct cost for each potential project duration. If the indirect costs for each project duration are $400 (19 time units), $350 (18), $300 (17), and $250 (16), compute the total project cost for each duration. Plot the total direct, indirect, and project costs for each of these durations on a cost-time graph. What is the optimum cost-time schedule for the project? What is this cost?

Activity	Crash Cost/Period (Slope)	Maximum Possible Crash Periods	Normal Time	Normal Cost
A	20	1	3	50
B	60	2	5	60
C	40	1	3	70
D	0	0	10	50
E	50	3	6	100
F	100	3	7	90
G	70	1	5	50

Crash

T	C
2	70

$470



Critical Path: ABEG

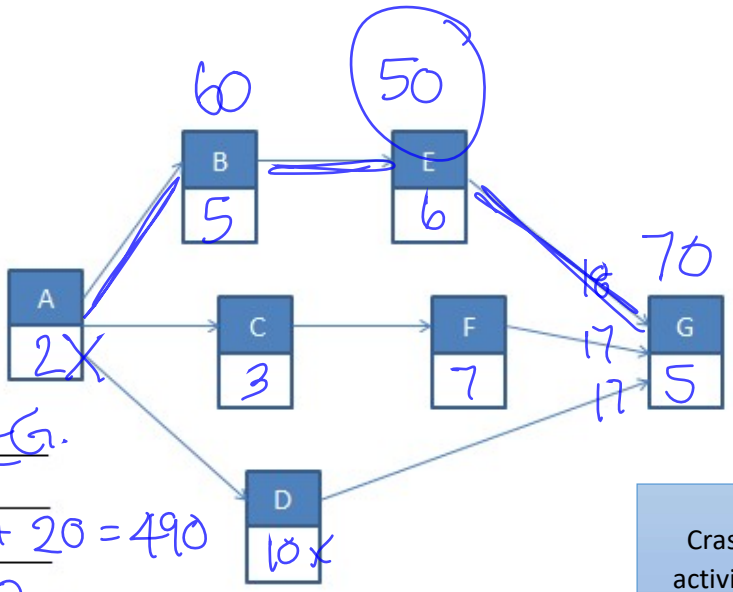
Duration: 19

Direct costs: 470

Indirect costs: 400

TC = $870.

Crash activity: A



Critical Path: ABEG.

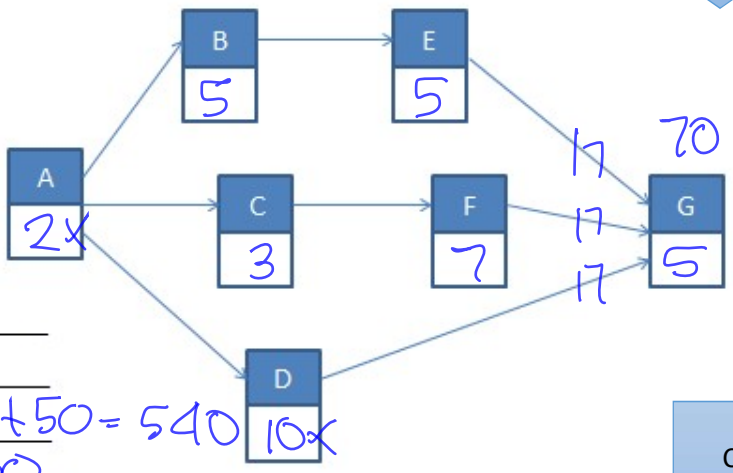
Duration: 18

Direct costs: 470 + 20 = 490

Indirect costs: 350

TC = 840

Crash activity: E



Critical Path: all

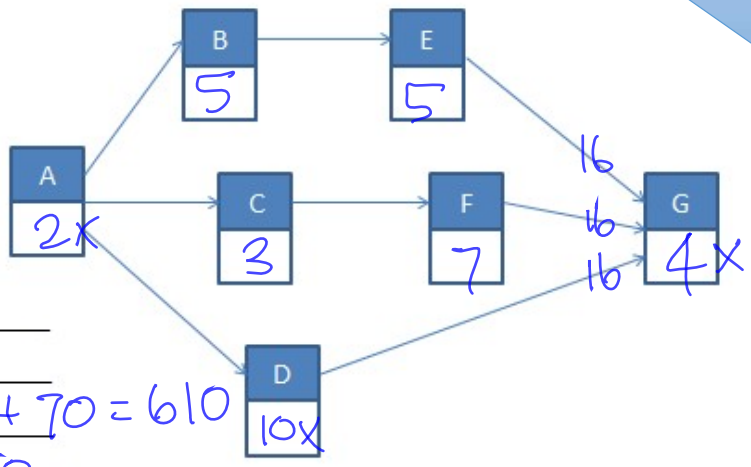
Duration: 17

Direct costs: 490 + 50 = 540

Indirect costs: 300

TC = 840

Crash activity: G



Critical Path: all

Duration: 16

Direct costs: 540 + 70 = 610

Indirect costs: 250

TC = 860.