

EXAMPLE

The Nuclear Bombastic Missile Co. Ltd., are striving to develop their Captain Scarlet rocket system before the end of the current financial year which is now 28 weeks away. If development can be completed before this target date then the company will benefit from a large bonus payment to be made by the sponsors of the research and development programme.

The decision is taken by the chief engineer of the company to use PERT techniques in order to plan, schedule, and control the programme of development work yet to be completed. A network is drawn representing the 11 major activities yet to be carried out and three estimates of duration for each activity are established. Table 9.6 lists the activities and their estimated durations.

What is the probability that the programme will be completed by the end of the current financial year?

i	j	OPTIMUM DURATION WEEKS	MOST LIKELY DURATION WEEKS	PESSIMISTIC DURATION WEEKS
1	2	3	8	13
1	3	2	5	8
1	4	3	8	10
2	5	4	7	10
3	6	2	3	8
4	6	7	9	10
4	8	4	6	9
5	7	6	9	12
6	9	5	7	11
7	9	2	5	14
8	9	4	6	9