Using the following project information

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity** |   | **Optimistic TimeEstimate(weeks)** |   | **Most Likely TimeEstimates (weeks)** |   | **Pessimistic TimeEstimates (weeks)** |   | **ImmediatePredecessor(s)** |   | **Variance** |   | **Expected Time(weeks)** |
|  |
| A |   | 3 |   | 6 |   | 9 |   | none |   | 1.000 |   | 6.00 |
| B |   | 3 |   | 5 |   | 7 |   | A |   | 0.444 |   | 5.00 |
| C |   | 4 |   | 7 |   | 12 |   | A |   | 1.778 |   | 7.33 |
| D |   | 4 |   | 8 |   | 10 |   | B |   | 1.000 |   | 7.67 |
| E |   | 5 |   | 10 |   | 16 |   | C |   | 3.361 |   | 10.17 |
| F |   | 3 |   | 4 |   | 5 |   | D,E |   | 0.111 |   | 4.00 |
| G |   | 3 |   | 6 |   | 8 |   | D,E |   | 0.694 |   | 5.83 |
| H |   | 5 |   | 6 |   | 10 |   | F |   | 0.694 |   | 6.33 |
| I |   | 5 |   | 8 |   | 11 |   | G |   | 1.000 |   | 8.00 |
| J |   | 3 |   | 3 |   | 3 |   | H,I |   | 0.000 |   | 3.00 |

The critical path is A-C-E-G-I-J.

(a) Calculate the probability that the project will be completed in 38 weeks.

P(project ≤ 38) =

(b) Calculate the probability that the project will be completed in 42 weeks.

P(project ≤ 42) =

***(Round your answers to 3 decimal places, the tolerance is +/-0.005.)***