Using the following project information

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity** |  | **Optimistic Time Estimate(weeks)** |  | **Most Likely Time Estimates (weeks)** |  | **Pessimistic Time Estimates (weeks)** |  | **Immediate Predecessor(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.)***