

With the provided values, calculations show that activities C and D would be accounted for given the slack. Thus the calculations below solely represent those activities (B and E) in the critical path.

$$variance_B = \left(\frac{5 - 1}{6}\right)^2 = \frac{4}{9}$$

$$variance_E = \left(\frac{5 - 3}{6}\right)^2 = \frac{1}{9}$$

$$total\ variance = 0 + \frac{4}{9} + \frac{1}{9} + 0 = \frac{5}{9}$$

$$standard\ deviation = \sqrt{\frac{5}{9}} = 0.7453559$$

$$z - score = \frac{(12 - 11)}{0.7453559} = 1.341641$$

$$Probability = 91\%$$