1. Given the following network, fill in the distance table, \(d_{i,k}\), and the intermediate node table, \(p_{i,k}\).

![Network Diagram]

\[d_{i,k}\]

\[p_{i,k}\]

2. Fill in the answers for the following problems:

(a) \(\lceil \sqrt{2} \rceil - \left| e \right| = \) ______________

(b) \((\lg n) \times O(f(n)) = \) ______________

(c) If two events, \(A\) and \(B\), are mutually exclusive, then:

\[
P(A) \times P(B) = 0 \quad \text{True} \quad \text{False}
\]
\[
P(A) + P(B) = 1 \quad \text{True} \quad \text{False}
\]
\[
P(A \cup B) = 1 \quad \text{True} \quad \text{False}
\]

(d) \(7 \mod -2 = \) ______________

(e) \(\frac{7}{3} - \left\lfloor \frac{7}{3} \right\rfloor = \) ______________