Question

A box contain three slips of paper marked 1,2,3 and in another box three slips of paper marked 4,5,6.One from each box is drawn.

a) Find the probability of both being odd?

b) find the probability of at least one odd?

Solution

a) The probability that the first odd: $p_1 = \dfrac{2}{3}$ (mark 1 or mark 3).

The probability that the second odd: $p_2 = \dfrac{1}{3}$ (only mark 5).

Then the required probability is $p = p_1 p_2 = \dfrac{2}{9}$.

b) the probability that both even: $q = \dfrac{1}{3} \cdot \dfrac{2}{3} = \dfrac{2}{9}$.

Then the required probability is $p = 1 - q = \dfrac{7}{9}$

Answer: a) $p = \dfrac{2}{9}$, **b)** $p = \dfrac{7}{9}$.