

### Solved Example:

The probability of event A,  $P(A)$  is  $\frac{2}{7}$  and the probability of event B  $P(B)$  is  $\frac{1}{9}$

What's the probability of events A and B both?

$$P(A \text{ and } B) = P(A) \times P(B) = \frac{2}{7} \times \frac{1}{9} = \frac{2}{63}$$

Q1)

The probability of flipping a head  $P(\text{heads})$  is  $\frac{1}{2}$  and the probability of choosing a yellow ball  $P(\text{yellow})$  is  $\frac{1}{12}$ .

The probability of both is:

$$P(\text{heads and yellow}) = P(\text{heads}) \times P(\text{yellow})$$

$$P(\text{heads and yellow}) = \text{———} \times \text{———} = \frac{1}{\text{———}}$$

Q2)

A dice is rolled and a penny is flipped. Find the probability of rolling a 2 and landing on tail.

$$P(2) = \text{———}$$

$$P(\text{Tails}) = \text{———}$$

$$P(2 \text{ and tails}) = \text{———} \times \text{———} = \frac{1}{\text{———}}$$

Q3)

A bag contains 3 red marbles, 2 green marbles, and 4 blue marbles (total of 9 marbles). A marble is drawn, then placed back, then another one is drawn.

What is the probability that the first marble is blue and the second is green ?

$$P(\text{blue}) = \text{———}$$

$$P(\text{green}) = \text{———}$$

$$P(\text{first blue and then green}) = \text{———} \times \text{———} = \text{———}$$

Q4)

The forecasts predicts a 40% chance of rain on Tuesday, and a 60% chance of rain on Wednesday.

What is the chance it will rain on both days?

$$P(\text{rain on Tuesday}) =$$

$$P(\text{rain on Wednesday}) =$$

$$P(\text{rain on Tuesday and Wednesday}) = \quad \times \quad =$$