



Probability Ex 13.1 Q23

Answer :

GIVEN: Five cards-ten, jack, queen, king and Ace of diamond are shuffled face downwards

TO FIND: Probability of following

Total number of cards are 5

(i) Cards which is a queen

Total number of Cards which are queen is 1

Number of favorable event i.e. Total number of Cards which are queen is 1

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting cards which are queen = $\frac{1}{5}$

(ii) If a king is drawn first and put aside then

Total number of cards is 4

Number of favorable event i.e. Total number of ace card is 1

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting ace cards = $\frac{1}{4}$

Probability Ex 13.1 Q24

Answer :

GIVEN: A bag contains 3 red, and 5 black balls. A ball is drawn at random

TO FIND: Probability of getting a

(i) red ball

(ii) white ball

Total number of balls $3 + 5 = 8$

(i) Total number red balls are 3

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting red ball is equal to = $\frac{3}{8}$

(ii) Total number of black ball are 5

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting black ball = $\frac{5}{8}$

Probability Ex 13.1 Q25

Answer :

GIVEN: Cards are marked with one of the numbers 2 to 90 are placed in a bag and mixed thoroughly.

One card is picked at random.

TO FIND: Probability of getting

(i) a two digit number

(ii) a number which is a perfect square

Total number of cards is $90 - 2 + 1 = 89$ (since 2 and 90 both are included).

(i) Cards marked two digit starts from 10

Total number of cards marked two digits from 10 to 90 is

$90 - 10 + 1 = 81$ (since 10 and 90 both are included)

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting a two digit card = $\frac{81}{89}$

(ii) Cards which are perfect square from 2 to 90 are 4, 9, 16, 25, 36, 49, 64, 81

Total number of cards marked perfect square from 2 to 90 are 8

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting perfect square card = $\frac{8}{89}$

Probability Ex 13.1 Q26

Answer :

GIVEN: A game of chance consists of spinning an arrow which is equally likely to come to rest pointing number 1, 2, 3, ..., 12

TO FIND: Probability of following

Total number on the spin is 12

(i) Favorable event i.e. to get 10 is 1

Total number of Favorable event i.e. to get 10 is 1

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting a 10 = $\frac{1}{12}$

(ii) Favorable event i.e. to get an odd number are 1, 3, 5, 7, 9, 11,

Total number of Favorable event i.e. to get a prime number is 6

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting a prime number is $\frac{6}{12} = \frac{1}{2}$

(iii) Favorable event i.e. to get an multiple of 3 are 3, 6, 9, 12

Total number of Favorable event i.e. to get a multiple of 3 is 4

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting multiple of 3 = $\frac{4}{12} = \frac{1}{3}$

(iv) Favorable event i.e. to get an even number are 2, 4, 6, 8, 10, 12

Total number of Favorable events i.e. to get an even number is 6

We know that $\text{PROBABILITY} = \frac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting an even number is $\frac{6}{12} = \frac{1}{2}$

***** END *****