

Chapter 15

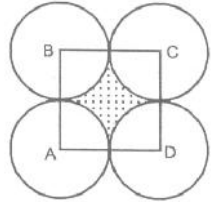
ASSIGNMENT

OBJECTIVE EXERCISE - 15.1

1. If two coins are tossed simultaneously, then the probability of getting at least two heads, is
(A) $\frac{1}{4}$ (B) $\frac{3}{8}$ (C) $\frac{1}{2}$ (D) $\frac{1}{4}$
2. A bag contains three green marbles four blue marbles, and two orange marbles. If a marble is picked at random, then the probability that it is not an orange marble is
(A) $\frac{1}{4}$ (B) $\frac{1}{3}$ (C) $\frac{4}{9}$ (D) $\frac{7}{9}$
3. A number is selected from number 1 to 27. The probability that it is prime is
(A) $\frac{2}{3}$ (B) $\frac{1}{6}$ (C) $\frac{1}{3}$ (D) $\frac{2}{9}$
4. If $P(E) = 0.05$, then $P(\text{not } E) =$
(A) -0.05 (B) 0.5 (C) 0.9 (D) 0.95
5. A bulb is taken out at random from a box of 600 electric bulbs that contains 12 defective bulbs. Then the probability of a non-defective bulb is
(A) 0.02 (B) 0.98 (C) 0.50 (D) None

SUBJECTIVE EXERCISE - 15.2

1. Two dice are thrown simultaneously. Find the probability of getting :
(i) An even number of the sum
(ii) The sum as a prime number
(iii) A total of at least 10
(iv) A multiple of 2 on one die and a multiple of 3 on the other.
2. Find the probability that a leap year selected at random will contain 53 Tuesdays.
3. A bag contains 12 balls out of which x are white.
(i) If one ball is drawn at random, what is the probability it will be a white ball ?
(ii) If 6 more white balls are put in the box. The probability of drawing a white ball will be double than that is (i). Find x .
4. In a class, there are 18 girls and 16 boys. The class teacher wants to choose one pupil for class monitor. What she does, she writes the name of each pupil on a card and puts them into a basket and mixes thoroughly. A child is asked to pick one card from the basket. What is the probability that the name written on the card is :
(i) The name of a girl (ii) The name of a boy ?

5. The probability of selecting a green marble at random from a jar that contains only green, white and yellow marbles is $\frac{1}{4}$. The probability of selecting a white marble from the same jar is $\frac{1}{3}$. If this jar contains 10 yellow marbles. What is the total number of marbles in the jar ?
6. A card is drawn at random from a well suffled desk of playing cards. Find the probability that the card drawn is
 (i) A card of spade or an ace (ii) A red king
 (iii) Neither a king nor a queen (iv) Either a king or a queen
7. There are 30 cards of same size in a bag on which number 1 to 30 are written. One card is taken out of the bag at random. Find the probability that the number of the selected card is not divisible by 3.
8. In **figure** points A,B,C and D are the centers of four circles that each have a radius of length on unit. If a point is selected at random from the interior of square ABCD. What is the probability that the point will be chosen from the shaded region ?
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9. A bag contains 5 white balls, 6 red balls, 6 black balls and 8 green balls. One ball is drawn at random from the bag. Find the probability that the ball drawn is
 (i) White (ii) Red or black
 (iii) Not green (iv) Neither white nor black [CBSE - 2006]
10. A bag contains 4 red and 6 black balls. A ball is taken out of the bag at random. Find the probability of getting a black ball. [CBSE - 2008]
11. Cards, marked with number 5 to 50, are placed in a box and mixed thoroughly. A card is drawn from the box at random. Find the probability that the number on the taken out card is
 (i) a prime number less than 10.
 (ii) a number which is a perfect square. [CBSE - 2008]