

OUR OWN HIGH SCHOOL, AL WARQA'A, DUBAI

GRADE: X WORK SHEET - PROBABILITY

1. Cards marked with numbers 3, 4, 5,, 50 are placed in a box and mixed thoroughly. One card is drawn at random from the box. Find the probability that the number on the drawn card is (i) divisible by 7 (ii) a perfect square.
2. A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball is thrice that of a red ball, find the number of blue balls in the bag.
3. A card is drawn at random from a well shuffled deck 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.
4. A bag contains 4 white balls, 6 red balls, 7 black balls and 3 blue balls. One ball is drawn at random from the bag. Find the probability that the ball drawn is :
(i) white (ii) not black (iii) neither white nor black (iv) red or white
5. A box contains 20 balls bearing numbers 1, 2, 3,....., 20. A ball is drawn at random from the box. What is the probability that the number on the ball is :
(i) an odd number (ii) divisible by 2 or 3 (iii) a prime number (iv) not divisible by 10
6. From a well shuffled pack of 52 cards, three kings and two black jacks are removed. From the remaining cards, a card is drawn at random. Find the probability that the drawn card is neither an ace nor a king.
7. Three unbiased coins are tossed simultaneously. Find the probability of getting : (i) one head (ii) at least two head (iii) at most two head
8. Two dice are thrown simultaneously. Find the probability of getting:
(i) an even number as sum (ii) the sum as a prime number (iii) a doublet
9. Find the probability that a leap year selected at random will contain 53 Sundays.
10. One card is drawn at random from a pack of 52 cards. Find the probability that the card drawn is: (i) an ace (ii) a red card (iii) either red or king (iv) a face card (v) '2' of spades (vi) '10' of a black suit
11. Cards marked with numbers 2 to 101 are placed in a box and mixed thoroughly. One card is drawn from this box. Find the probability that the number on the card is:
(i) an even number (ii) a number less than 21 (iii) a perfect square (iv) a prime number less than 20.
12. A bag contains 15 balls, out of which x are white.
(i) If one ball is drawn at random, what is the probability that it will be a white ball?
(ii) If 5 more white ball were put in the bag, the probability of drawing a white ball will be double than that in (i). Find x .
13. A jar contains blue, green and white marbles. The probability of selecting a blue marble at random is $\frac{1}{3}$, while the probability of selecting a green marble at random is $\frac{4}{9}$. If there are 54 marbles in the jar in all, how many white marbles are there in the jar?
