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SUNRISE EDUCATION CENTRE

-By Er. Mohit Nariyani.

Worksheet - I
Chapter-14

Probability

1. Two dice are thrown together. Find the probability that the product of the numbers on the top of the dice is (i) 6 (ii) 12 (iii) 7
2. Two dice are thrown at the same time and the product of numbers appearing on them is noted. Find the probability that the product is less than 9.
3. Two dice are thrown at the same time. Determine the probabiity that the difference of the numbers on the two dice is 2.
4. Two dice are thrown simultaneously. Find the probability of getting
   a) an even number on first dice b) an odd number on first dice
   c) an even number as the sum d) a multiple of 5 as the sum e) a multiple of 7 as the sum.
5. The king , queen and jack of clubs are removed from a pack of 52 playing cards. One card is selected at random from the remaining cards. Find the probability that the card is
   (a) neither a heart nor a king (b) neither an ace nor a king
   (c) neither a red card nor a queen card (d) a black card or an ace. (e) either a heart or a spade card
6. All spades are removed from a well shuffled deck of 52 cards and then one card is drawn randomly from the remaining cards. Find the probability of getting (a) neither a heart nor a king
   (b) neither an ace nor a king (c) neither a red card nor a queen card
   (d) a black card or an ace. (e) either a heart or a spade card
7. All face cards are removed from a well shuffled deck of 52 cards and then one card is drawn randomly from the remaining cards. Find the probability of getting (a) neither a heart nor a king
   (b) neither an ace nor a king (c) neither a red card nor a queen card
   (d) a black card or an ace. (e) either a heart or a spade card
8. All cards of ace, jack and queen are removed from a deck of playing cards. One card is drawn at random from the remaining cards, find the probability that the card drawn
   (a) neither a heart nor a king (b) neither an ace nor a king (c) neither a red card nor a queen card
   (d) a black card or an ace. (e) either a heart or a spade card (f) a king card (g) a heart card
   (h) a red card (i) a black card (j) a spade card
9. A coin is tossed two times. Find the probability of getting at most one head
10. A coin is tossed 3 times. List the possible outcomes. Find the probability of getting
    (i) all heads (ii) at least 2 heads
11. Three coins are tossed simultaneously. What is the probability of getting
    i) exactly two heads ii) at least two heads iii) at most two heads iv). one head or two heads
    v). exactly one tail vi). at least one tail vii). at most one tail viii). at least two tails
    ix). at most two tails x). exactly two tails

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12. Cards are marked with numbers 5, 6, 7, …….50 are placed in the box and mixed thoroughly. One card is drawn at random from the box. What is the probability of getting
    a) a two-digit number b) a perfect square number c) a number divisible by 5.
    d) a number divisible by 2 or 3. e) a number divisible by 2 and 3.
13. The probability that it will rain today is 0.84. What is the probability that it will not rain today?
14. What is the probability that an ordinary year has 53 Sundays?
15. Find the probability of getting 53 Fridays in a leap year.
16. 250 lottery tickets were sold and there are 5 prizes on these tickets. If Mahesh purchased one lottery ticket, what is the probability that he wins a prize?
17. A jar contains 54 marbles, each of which is blue, green or white. If a marble is drawn at random from the jar, the probability that it is green is $\frac{1}{3}$ and that of getting a blue marble is $\frac{4}{9}$. Find the number of white marbles in the jar.
18. A letter is chosen at random from the letters of the word 'MATHEMATICS'. Find the probability that the letter chosen is a (i) vowel (ii) consonant (iii) A (iv) T (v) M.
19. A die has its six faces marked 0, 1, 1, 1, 6, 6. Two such dice are thrown together and the total score is recorded. (i) How many different scores are possible?
    (ii) What is the probability of getting a total of 7?
20. Box A contains 25 slips of which 19 are marked Re 1 and other are marked Rs 5 each. Box B contains 50 slips of which 45 are marked Re 1 each and others are marked Rs 13 each. Slips of both boxes are poured into a third box and reshuffled. A slip is drawn at random. What is the probability that it is marked other than Re 1?
21. A child's game has 8 triangles of which 3 are blue and rest are red, and 10 squares of which 6 are blue and rest are red. One piece is lost at random. Find the probability that it is a
    (i) triangle (ii) square (iii) square of blue colour (iv) triangle of red colour
22. A box contains 90 discs which are numbered from 1 to 90. If one disc is drawn at random from the box, find the probability that it bears
    a) a two-digit number b) a perfect square number c) a number divisible by 5.
    d) a number divisible by 2 or 3. e) a number divisible by 2 and 3. f) a number divisible by 7.
    g) a number multiple of 8.