

YugVanta

Class 10 Maths Part 1

5. Probability

SET C (Hard Level | Maharashtra Board)

1. A bag contains 4 red, 5 blue, and 6 green balls. Two balls are drawn one after another without replacement. What is the probability that both are green?
2. A die is rolled three times. What is the probability that at least one of the outcomes is a 6?
3. A number is chosen randomly from the first 100 natural numbers. What is the probability that it is divisible by both 3 and 4?
4. Two cards are drawn from a standard deck of 52 cards without replacement. What is the probability that one is a red king and the other is a black queen?
5. A coin is tossed five times. What is the probability of getting more heads than tails?
6. A bag contains 10 balls numbered from 1 to 10. Two balls are drawn without replacement. What is the probability that the sum is a prime number?
7. A person throws two dice. What is the probability that the product of the numbers is a multiple of 5?
8. Three coins are tossed simultaneously. What is the probability of getting at most two heads?
9. A committee of 3 is to be formed from 5 boys and 4 girls. What is the probability that it includes at least one girl?
10. Two cards are drawn one after another with replacement. What is the probability that both are face cards?
11. A number is selected at random from 1 to 200. What is the probability that the number is divisible by either 7 or 11?
12. A die is rolled. If the outcome is even, a coin is tossed. What is the probability of getting an even number and a head?
13. A bag contains 5 red, 4 green, and 3 blue balls. Two balls are drawn. What is the probability that they are of the same color?
14. From a group of 6 boys and 5 girls, two students are chosen at random. What is the probability that both are of the same gender?
15. One letter is chosen at random from the word **PROBABILITIES**. What is the probability of choosing a consonant?
16. A die is rolled four times. What is the probability of getting a **1** at least once?
17. From the numbers 1 to 100, a number is chosen at random. What is the probability that it is a perfect square or a perfect cube?

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18. A bag contains 6 black, 5 white, and 3 red balls. Two balls are drawn with replacement. What is the probability that they are of different colors?
19. Two coins are tossed. What is the probability that at least one head appears, given that at least one coin shows a tail?
20. A number is selected randomly from the first 150 natural numbers. What is the probability that it is a multiple of 5 but not of 10?