FINDING SIMPLE PROBABILITIES

Answer all of these questions. Remember to show your working out in all questions.

MAIN QUESTIONS

1. A fair six-sided die is rolled. What is the probability of rolling a 3? 1/6

2. A bag contains 4 red marbles and 6 blue marbles. What is the probability of drawing a red marble? 2/5

3. A spinner has 8 equal sections numbered 1 to 8. What is the probability of landing on an even number? 1/2

4. A standard deck of 52 cards is shuffled. What is the probability of drawing a heart? 1/4

5. A fair coin is flipped. What is the probability of landing on heads? 1/2

6. A box contains 5 green pencils and 3 yellow pencils. What is the probability of picking a yellow pencil? 3/8

7. A spinner has 5 equal sections: 2 red, 2 blue, and 1 green. What is the probability of landing on red? 2/5

8. A bag contains 7 black balls and 3 white balls. What is the probability of drawing a white ball? 3/10

9. A fair six-sided die is rolled. What is the probability of rolling a number greater than 4?

1/3

10. A standard deck of 52 cards is shuffled. What is the probability of drawing a king?

1/13

11. A jar contains 10 sweets: 4 are strawberry and 6 are lemon. What is the probability of picking a strawberry sweet?

2/5

12. A fair six-sided die is rolled. What is the probability of rolling an odd number?

1/2

13. A bag contains 8 red counters and 4 blue counters. What is the probability of drawing a blue counter?

1/3

14. A spinner has 10 equal sections: 3 are yellow, 4 are blue, and 3 are green. What is the probability of landing on yellow?

3/10

15. A standard deck of 52 cards is shuffled. What is the probability of drawing a queen or a king?

2/13

16. A fair six-sided die is rolled. What is the probability of rolling a prime number?

1/2

17. A bag contains 5 black pens, 3 red pens, and 2 blue pens. What is the probability of picking a red pen?

3/10

18. A spinner has 6 equal sections: 1 is red, 2 are blue, and 3 are green. What is the probability of landing on green?

1/2

19. A standard deck of 52 cards is shuffled. What is the probability of drawing a diamond or a club?

1/2

20. A fair six-sided die is rolled. What is the probability of rolling a number divisible by 3?

1/3

MASTER QUESTIONS

M1. In a class of 30 students, 12 are boys. If a student is chosen at random, what is the probability that the student is a girl? | 3/5

M2. A bag contains 12 counters: some are red and the rest are blue. The probability of drawing a red counter is 1/3. How many blue counters are in the bag? | 8

M3. A spinner has sections numbered 1 to 10. What is the probability of landing on a number that is a multiple of both 2 and 3? | 1/10

M4. In a lottery, 1000 tickets are sold. You buy 5 tickets. What is the probability that you will win if only one ticket is drawn? | 1/200

M5. A box contains 15 chocolates: 6 are milk, 5 are dark, and 4 are white. If one chocolate is taken at random, what is the probability that it is not white? | 11/15

M6. A bag contains 20 marbles: 8 are green, 7 are yellow, and 5 are red. If one marble is drawn, what is the probability that it is either green or red? | 13/20

M7. A fair six-sided die is rolled twice. What is the probability of rolling a 4 both times? | 1/36

M8. A jar contains 24 jelly beans: 10 are cherry, 8 are lime, and 6 are orange. If two jelly beans are drawn without replacement, what is the probability that both are lime? | 7/69

M9. A card is drawn from a standard deck, replaced, and then another card is drawn. What is the probability that both cards are spades? | 1/16

M10. A bag contains 5 white balls and 7 black balls. If two balls are drawn without replacement, what is the probability that both are white? | 5/33