EXPERIMENTAL PROBABILITY

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

MAIN QUESTIONS

1. A coin is flipped 50 times and lands on heads 27 times. What is the experimental probability of landing on heads?

27/50

2. A die is rolled 60 times and lands on a 4 ten times. What is the experimental probability of rolling a 4?

10/60 or 1/6

3. A spinner lands on red 15 times out of 40 spins. What is the experimental probability of landing on red?

15/40 or 3/8

4. A bag of marbles is drawn from 30 times, and a blue marble is drawn 12 times. What is the experimental probability of drawing a blue marble?

12/30 or 2/5

5. A coin is flipped 100 times and lands on tails 48 times. What is the experimental probability of landing on tails?

48/100 or 12/25

6. A die is rolled 120 times and lands on a 6 twenty times. What is the experimental probability of rolling a 6?

20/120 or 1/6

7. A spinner lands on green 18 times out of 45 spins. What is the experimental probability of landing on green?

18/45 or 2/5

8. A bag of marbles is drawn from 50 times, and a red marble is drawn 20 times. What is the experimental probability of drawing a red marble?

20/50 or 2/5

9. A coin is flipped 200 times and lands on heads 102 times. What is the experimental probability of landing on heads?

102/200 or 51/100

10. A die is rolled 180 times and lands on a 3 thirty times. What is the experimental probability of rolling a 3?

30/180 or 1/6

11. A spinner lands on blue 24 times out of 60 spins. What is the experimental probability of landing on blue?

24/60 or 2/5

12. A bag of marbles is drawn from 70 times, and a green marble is drawn 28 times. What is the experimental probability of drawing a green marble?

28/70 or 2/5

13. A coin is flipped 150 times and lands on tails 72 times. What is the experimental probability of landing on tails?

72/150 or 12/25

14. A die is rolled 240 times and lands on a 5 forty times. What is the experimental probability of rolling a 5?

40/240 or 1/6

15. A spinner lands on yellow 27 times out of 90 spins. What is the experimental probability of landing on yellow?

27/90 or 3/10

16. A bag of marbles is drawn from 80 times, and a yellow marble is drawn 32 times. What is the experimental probability of drawing a yellow marble?

32/80 or 2/5

17. A coin is flipped 250 times and lands on heads 123 times. What is the experimental probability of landing on heads?

123/250

18. A die is rolled 300 times and lands on a 2 fifty times. What is the experimental probability of rolling a 2?

50/300 or 1/6

19. A spinner lands on purple 33 times out of 110 spins. What is the experimental probability of landing on purple?

33/110 or 3/10

20. A bag of marbles is drawn from 100 times, and a black marble is drawn 40 times. What is the experimental probability of drawing a black marble?

40/100 or 2/5

MASTER QUESTIONS

M1. In an experiment, a biased coin is flipped 200 times and lands on heads 110 times. What is the experimental probability of landing on tails?

90/200 or 9/20

M2. A die is rolled 360 times and lands on an even number 190 times. What is the experimental probability of landing on an odd number?

170/360 or 17/36

M3. A spinner has three colours: red, blue, and green. In 120 spins, it lands on red 50 times, blue 45 times, and green 25 times. What is the experimental probability of landing on blue or green?

70/120 or 7/12

M4. A bag contains red, blue, and yellow marbles. In 150 draws, a red marble is drawn 60 times, a blue marble 50 times, and a yellow marble 40 times. What is the experimental probability of not drawing a yellow marble?

110/150 or 11/15

M5. A coin is flipped 300 times and lands on heads 155 times. What is the experimental probability of landing on heads in the next 100 flips?

155/300 or 31/60

M6. A die is rolled 420 times and lands on a prime number (2, 3, or 5) 210 times. What is the experimental probability of not rolling a prime number?

210/420 or 1/2

M7. A spinner has four colours: red, blue, green, and yellow. In 200 spins, it lands on red 60 times, blue 50 times, green 50 times, and yellow 40 times. What is the experimental probability of landing on red or yellow?

100/200 or 1/2

M8. A bag contains red, blue, green, and black marbles. In 180 draws, a red marble is drawn 45 times, a blue marble 60 times, a green marble 45 times, and a black marble 30 times. What is the experimental probability of drawing a blue or black marble?

90/180 or 1/2

M9. A coin is flipped 500 times and lands on tails 245 times. What is the experimental probability of landing on tails in the next 200 flips?

245/500 or 49/100

M10. A die is rolled 600 times and lands on a number greater than 4 (5 or 6) 200 times. What is the experimental probability of rolling a number less than or equal to 4?

400/600 or 2/3