|  |
| --- |
| **Theoretical Probability with Dice** |
| **(a)** | **(b)** | **(c)** | **(d)** |
| A fair, six-sided dice numbered $1$ to $6$ is rolled once. What is the probability of the dice landing on a $5$? | A fair four-sided dice numbered $1$ to $4$ is rolled once. What is the probability of the dice landing on a $3$? | A fair ten-sided dice numbered $1$ to $10$ is rolled once. What is the probability of the dice landing on a $7$? | A fair ten-sided dice numbered $1$ to $10$ is rolled once. What is the probability of the dice landing on a $5$ or $6$? |
| **(e)** | **(f)** | **(g)** | **(h)** |
| A fair, six-sided dice numbered $1$ to $6$ is rolled once. What is the probability of the dice landing on an odd number? | A fair four-sided dice numbered $1$ to $4$ is rolled once. What is the probability of rolling a number less than $3$? | A fair ten-sided dice numbered $1$ to $10$ is rolled once. What is the probability of rolling a number less than $7$? | A fair, six-sided dice numbered $1$ to $6$ is rolled once. What is the probability of the dice landing on a number that is not six? |
| **(i)** | **(j)** | **(k)** | **(l)** |
| A fair, six-sided dice numbered $1$ to $6$ is rolled once. What is the probability of the dice landing on a prime number? | A fair four-sided dice numbered $3, 4, 5$ and $6$ is rolled once. What is the probability of the dice landing on a multiple of $3$? | A fair six-sided dice numbered $1, 1, 1, 2, 2$ and $3$ is rolled once. What is the probability of rolling a $1$? | A fair six-sided dice numbered $1, 1, 1, 2, 2$ and $3$ is rolled once. What is the probability of rolling a number that is not a $2$? |
| **(m)** | **(n)** | **(o)** | **(p)** |
| A fair ten-sided dice numbered $1$ to $10$ is rolled once. What is the probability of rolling a square number? | A fair ten-sided dice numbered $1$ to $10$ is rolled once. What is the probability of rolling a number that is a factor of $12$? | The probability of rolling a $6$ on a biased dice is $0.3.$ What is the probability of not rolling a $6$? | If a fair six-sided dice is rolled $60$ times, how many times would you expect it to land on a $3$? |