Theoretical Probability

A fair dice is rolled once. What is the probability that the dice lands on:

(a) 1 (b) 4 or more
(c) a prime number
(d) a factor of 6
(e) 7 (f) not 5

A fair spinner has 8 equal sections, numbered 1 to 8. If the spinner is spun once, what is the probability that it lands on:

(a) an even number
(b) a number less than 4
(c) 1 or 2
(d) a number less than 10
(e) not a prime number

A bag contains 3 red balls, 6 blue balls and 5 yellow balls. A ball is picked at random. What is the probability that:

(a) the ball is red
(b) the ball is blue or yellow
(c) the ball is not blue
(d) the ball is white

A letter is chosen at random from the word {S T A T I S T I C S}. What is the probability that the letter is:

(a) an S (b) a C or a T
(c) a vowel (d) not a T

At brunch, Tomek has a choice of toast, croissant or pain au chocolat. If $P(toast) = 0.25$ and $P(croissant) = 0.35$, what is the probability that Tomek chooses pain au chocolat?

Bag A contains 5 red balls and 7 white balls. Bag B contains 3 red balls and 5 white balls. From which bag do you have the highest probability of choosing a white ball at random?

Theoretical Probability

A fair dice is rolled once. What is the probability that the dice lands on:

(a) 1 (b) 4 or more
(c) a prime number
(d) a factor of 6
(e) 7 (f) not 5

A fair spinner has 8 equal sections, numbered 1 to 8. If the spinner is spun once, what is the probability that it lands on:

(a) an even number
(b) a number less than 4
(c) 1 or 2
(d) a number less than 10
(e) not a prime number

A bag contains 3 red balls, 6 blue balls and 5 yellow balls. A ball is picked at random. What is the probability that:

(a) the ball is red
(b) the ball is blue or yellow
(c) the ball is not blue
(d) the ball is white

A letter is chosen at random from the word {S T A T I S T I C S}. What is the probability that the letter is:

(a) an S (b) a C or a T
(c) a vowel (d) not a T

At brunch, Tomek has a choice of toast, croissant or pain au chocolat. If $P(toast) = 0.25$ and $P(croissant) = 0.35$, what is the probability that Tomek chooses pain au chocolat?

Bag A contains 5 red balls and 7 white balls. Bag B contains 3 red balls and 5 white balls. From which bag do you have the highest probability of choosing a white ball at random?