S2

CFE Level 3

Working at Home Workbook

Probability

Learning Intention. To be able to -
Express probability in ratio form
Express probability as a fraction
Work out probability in independent events
Work out probability in dependent events

Express probability in ratio form

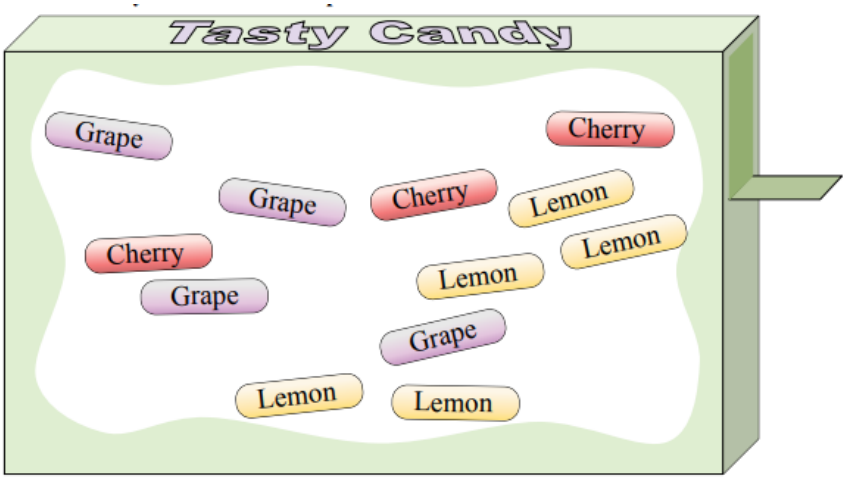
Questions 1

1. Express probability in ratio form:

(a) What is the probability of selecting a cherry piece?

(b) What is the probability of selecting a lemon piece?

(c) What is the probability of selecting a grape piece?



Questions 2

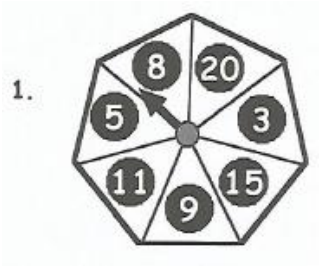
A bag contains 5 lollies, 6 turkish delights and 10 sugar mice.

(a) What is the probability of selecting a Turkish delight?
(b) What is the probability of selecting a sugar mice?
(c) What is the probability of selecting a lolly?

Express probability as a fraction

Questions 1

1.



This 7-sided spinner is spun and the number noted.

Calculate, as a fraction, the probability it will point to:

(a) the number 9, P(9)

(b) an ODD number, P(odd),

(c) a MULTIPLE of 5

(d) the number 13.

Questions 2

The Ace to the 10 of Diamonds are taken from a pack and the 10 cards are shuffled. The cards are turned face down and one card is chosen.

(a) What is the probability the card is the odd?
(b) What is the probability the card is black
(c) What is the probability the card is bigger than an 8?
(d) What is the probability the card is the Ace of Hearts?

Work out probability in independent events

Questions 1

A dice is thrown twice. What is the probability that both scores are:

(a) even
(b) one even and one odd (in any order)?

Question 2

Bernice draws a card from a pack of cards, replaces it, shuffles the pack and then draws another card. What is the probability that the cards are:

(c) both Aces
(d) an Ace and a King (in any order)?

Question 3

A cupboard contains 4 pairs of shoes – brown, black, red and white. Without looking, you reach into the cupboard and choose a pair. You put that pair back into the cupboard and choose a second pair.

(a) What is the probability that you will choose a brown pair both times?
(b) What is the probability that you will choose red and white pairs?
(c) What is the probability that you will choose a black pair both times?

Work out probability in dependent events

Questions 1

A bag contains 9 blue marbles and 3 red marbles. Two marbles are drawn at random. What is the probability of getting:

(a) Two red marbles?
(b) One red marble and one blue marble?
(c) Two blue marbles?

Questions 2

A bag contains 15 beads. Six are black and the rest are white. Two beads are drawn at random. Find the probability of getting:

(a) Both beads black?
(b) Both beads white?
(c) At least one white bead?

Questions 3

In a pack of 52 cards, 4 of the cards are Kings. Two cards are randomly picked from the pack. Find the probability of picking:

(a) Two Kings?
(b) At least one King?
(c) Not a King?