



Name: _____ **Date:** _____ **Score:** _____ / 30

1 Ola is choosing an outfit.

She has 3 shirts: red (R), blue (B) and green (G).

She has 2 pairs of shorts: black (K) and white (W).

List all the possible outfits Ola can choose. One outfit, RK, has been done for you.

(2 marks)

Answer _____

2 A cafe sells 3 hot drinks: tea (T), coffee (C) and hot chocolate (H).

It sells 2 cakes: flapjack (F) and brownie (B).

Noah chooses one hot drink and one cake.

List all the possible combinations Noah can choose.

(2 marks)

Answer _____

3 Bag A contains three cards numbered 1, 2 and 3.

Bag B contains two cards numbered 5 and 7.

Erin takes one card from bag A and one card from bag B.

Write down all the possible pairs of cards Erin can take.

(2 marks)

Answer _____

4 Ali throws a fair coin 3 times.

Each throw lands on heads (H) or tails (T).

List all the possible outcomes of the 3 throws. One outcome, HHH, has been done for you.

(2 marks)

Answer _____

5 A locker code is a letter followed by a prime number.

The letter is chosen from P, Q and R.

The prime number is chosen from 3 and 7.

List all the possible locker codes.

(2 marks)

Answer _____

6 A pizza shop offers 4 toppings: mushroom (M), pepper (P), olive (O) and sweetcorn (S).

Jo chooses 2 different toppings for her pizza.

List all the possible pairs of toppings Jo can choose.

(2 marks)

Answer _____

7 Spinner A has three equal sections numbered 1, 2 and 3.

Spinner B has two equal sections numbered 4 and 5.

Both spinners are spun and the two numbers are multiplied together.

List all the possible products.

(2 marks)

Answer _____

8 Ivy has three coins: a 5p coin, a 10p coin and a 20p coin.

She picks two different coins and adds their values.

List all the possible totals.

(2 marks)

Answer _____

- 9** Spinner A has sections numbered 1, 2 and 3. Spinner B has sections numbered 1 and 2. Both spinners are spun and the two scores are added together. Part of the sample space table is shown.

Spinner B \ Spinner A	1	2	3
1	2	3	4
2			

- Complete the table.
- Write down the probability that the total score is 4.

(3 marks)

Answer _____

- 10** A fair coin is thrown and a fair four-sided spinner, numbered 1, 2, 3 and 4, is spun.

- List all the possible outcomes. One has been done for you: H1.
- Work out the probability of getting a head and an even number.

(3 marks)

Answer _____

- 11** Mia picks a card at random from cards numbered 1, 2 and 3. Kofi picks a card at random from cards numbered 2 and 4. Their two numbers are added together.

- Draw a sample space table to show all the possible totals.
- Work out the probability that the total is an odd number.

(4 marks)

Answer _____

12

Two fair six-sided dice are rolled and their scores are added together.

- a. Draw a sample space diagram to show all the possible total scores. How many outcomes are there?
- b. Work out the probability that the total is 7.
- c. Work out the probability that the total is at least 9.

(4 marks)

Answer _____

End of questions | Total 30 marks