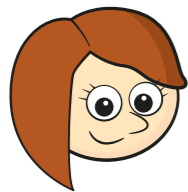


# Know that the sum of probabilities of all possible outcomes is 1

- 1 A drawer contains some yellow and blue socks.  
Rosie removes a sock at random.  
The probability that the sock is yellow is  $\frac{3}{5}$



This means that there are only 5 socks in the drawer.

- a) Do you agree with Rosie? \_\_\_\_\_  
Explain your answer.

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- b) What is the probability of getting a blue sock?

- 2 A bag contains strawberry and lime sweets.  
Kim chooses a sweet at random.  
The probability that Kim chooses a strawberry sweet is 0.7  
What is the probability that Kim chooses a lime sweet?

- 3 A box contains 12 coloured counters.
- 5 of the counters are pink.
  - 3 of the counters are blue.
  - The rest of the counters are green.

A counter is removed from the box at random.

What is the probability that the counter is green?

- 4 A spinner has three coloured sections: red, green and orange.  
The table shows the probability of getting each colour.

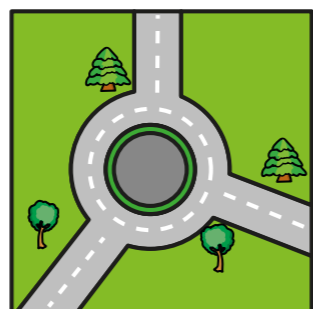
Colour	red	green	orange
Probability	0.2	0.5	

- a) What is the probability of getting red or green?

- b) What is the probability of getting orange?

- 5 The probability that a train arrives on time is 0.56  
What is the probability that the train is late?  
Show your workings.

- 6 There are three exits from a roundabout.



The probability that a particular car takes a certain exit is shown in the table.

Exit	exit 1	exit 2	exit 3
Probability	0.54	0.27	

Find the probability that a car takes exit 3

- 7 A spinner has some numbered sections.

The probability of getting a particular number is shown in the table.

Number	1	2	3	4	5
Probability	0.17		0.51	0.02	0.1

The spinner is spun once.

Find the probability of spinning:

a) the number 2

b) an odd number

c) a number greater than 2

- 8 The probability that a biased coin lands on heads is 0.72

What is the probability that the coin lands on tails?

- 9 Some letter cards are placed in a box.

Each card is labelled A, B or C.

The probability of getting each letter is shown in the table.

Letter	A	B	C
Probability	$\frac{1}{5}$	$\frac{3}{10}$	

Find the probability of getting a C.

- 10 The probability that the Spencer family will go on holiday is 0.05

What is the probability that the Spencer family will **not** go on holiday?

- 11 Alex has a box of coloured pencils.

The pencils are brown, green or red.

She takes a pencil from the box at random.

The probability that Alex takes out a brown pencil is  $\frac{3}{8}$

The probability that she takes out a green pencil is  $\frac{7}{12}$

Find the probability that Alex takes out a red pencil.

- 12 Ron plays a game. He can either win or lose the game.

Ron is 4 times more likely to lose the game than win the game.

What is the probability that he wins the game?

