

## My mathematical journey

What do I need to remember from before?

Number lines (NP1, 2, 3, and 6)

Decimals (NP1, 2, and 3)

Fractions (NP7)

Frequency tables (SP1)

What will I learn about in this unit?

Systematic listing and the product rule

Experimental and theoretical probability

Probability diagrams

Where does this lead?

Sets and Venn diagrams (SP5)

Sampling and data analysis (SP6)

Advanced probability problems (SP7)

## Key words and symbols: what I need to say and write accurately

Word	Explanation
<b>systematic</b>	working in an organised way
<b>relative frequency</b>	the proportion of times something happens
<b>outcome</b>	a result we could get from a probability experiment e.g. rolling a fair six-sided die gives the outcomes 1, 2, 3, 4, 5, and 6
<b>event</b>	one or more outcomes e.g. rolling a square number on a die
<b>fair</b>	all outcomes are equally likely
<b>biased</b>	some outcomes are more likely than others
<b>mutually exclusive</b>	events which cannot happen at the same time
<b>independent</b>	If events are independent, they do not influence or affect each other. e.g. if I flip a coin twice, the outcome of the first flip has no effect on the outcome of the second flip: the events are independent.

## Fingertip facts: what I need to learn by heart

$$P(\text{event}) = \frac{\text{outcomes we want}}{\text{total outcomes}}$$

Probabilities can be represented by a number between 0 and 1.



The sum of all mutually exclusive events is 1.

If events  $A$  and  $B$  are mutually exclusive,  $P(A \text{ or } B) = P(A) + P(B)$

$P(\text{not } A) = 1 - P(A)$ . This can also be written  $P(A') = 1 - P(A)$