

Tables & Probability

Brackets & Equations

Inequalities

Probability – the likelihood of an event happening.
 Probabilities are written as fractions, decimals or percentages.

Event – a possible outcome of an experiment.
Example: When a coin is tossed, the possible events are Tails or Heads.

P(event) means the probability of an event happening.

Outcome – the result of an experiment or event

Fair – every outcome has an equally likely chance of happening.

Biased – every outcome does NOT have an equally likely chance of happening.

Sample space – all the possible outcomes of an experiment. A **sample space diagram** organises these outcomes.

Two-way table – a way to organise 2 categories of data.

	A cat and a dog	A dog but no cat
	Has a cat	No cat
Has a dog	5	7
No dog	10	4
	A cat but no dog	Neither a cat nor a dog

Unknown – a letter representing a value we don't know. The value is fixed and can be worked out.

Equation – states that 2 things are equal. It has an equals sign.

Solve – to find the value of the unknown.

Example
 $2y + 5 = 13$ is an **equation** where y is an **unknown**.
 We **solve** the equation to find y .
 $y = 4$ is the solution.

Expand – re-write without brackets by doing a multiplication.
Example: $4(x - 2) \equiv 4x - 8$

Factorise – re-write an expression with brackets by identifying the highest common factor.
Example: $6x + 12 \equiv 6(x + 2)$

Inequality – compares the sizes of two values or expressions.

When writing inequalities we use the following symbols:

= **Equal to**

≠ **Not equal to**

> **Greater than**

≥ **Greater than or equal to**

< **Less than**

≤ **Less than or equal to**

larger ↑ **>** ↓ smaller