

Times Tables

$6 \times 1 = 6$

$6 \times 2 = 12$

$6 \times 3 = 18$

$6 \times 4 = 24$

$6 \times 5 = 30$

$6 \times 6 = 36$

$6 \times 7 = 42$

$6 \times 8 = 48$

$6 \times 9 = 54$

$6 \times 10 = 60$

$6 \times 11 = 66$

$6 \times 12 = 72$

Collecting Data

A **hypothesis** is a prediction of the outcome of an experiment or investigation.

Primary data is data collected directly from things like questionnaires, surveys or experiments.

Secondary data is data found from another source e.g. from a textbook or website.

Sample is the number of pieces of information being used.

If there aren't any definite results from an investigation, it is called **inconclusive**.

A **questionnaire** is used to collect data through a series of questions.

Biased data is unfairly representative.

Representing Data

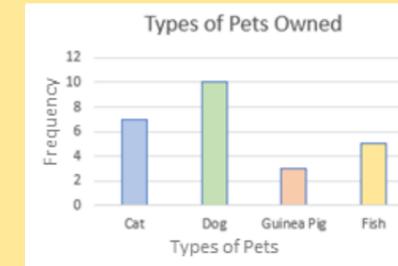
Bar charts show a comparison of different sets of discrete data.

The height of the bar chart tells you the frequency. Bars must be of equal widths and have equal gaps between them.

Frequency is the number of pieces of data.

Pie Charts show the proportion of a circle for each category.

A **pictogram** uses images to represent a frequency. It must include a key.



A **tally** uses lines to record information quickly. The number five is represented by IIII e.g. IIII III represents a frequency of 8.

Bivariate data compares two variables e.g. time spent revising and test scores.

A **key** is important with different types of representations, as it explains the data that is shown. In a pie chart it shows what is represented with each section. In a pictogram it shows the value of a full picture.

Averages and Speed

Range is the difference between the largest and smallest values. The range shows the **spread** of the data.

Range is **NOT** an average.

If a set of data has a small range, it is said to be **consistent**. This means that the pieces of data are closer together.

Averages

The **mean** is found by adding all pieces of data together and distributing it equally between the frequency.

The **median** is the middle number when all the numbers are arranged in ascending or descending order.

The **mode** is the most common piece of data.

Grouped Data

Quantitative data is numerical information, it can be given a quantity e.g. number of cars in a car park.

Qualitative data cannot be given a quantity, it is descriptive e.g. an opinion.

Grouped data is collected into groups e.g. an age range.

Discrete data takes certain values. It can be counted e.g. frequency of people.

Continuous data can take any value within a class e.g. height would be within different classes 151 cm - 160 cm, 161 cm - 170 cm etc.

Class is the group of data e.g. 151 cm - 160 cm.

Interval is another word for a group or class.

Frequency diagram is used to display continuous data.

Averages from a Table

A **frequency table** is a table that lists the number of times an item occurs.

An **estimate** is an approximation of the value. When estimating an average from a table you do **not** round to 1 significant figure.

The **total** is the sum of all of the frequencies.

A **subtotal** is a portion of the whole total.

The **midpoint** is the middle value of an interval.

A **class** is a group of values.

The **modal class** is the group with the highest frequency. It is the modal value.

An **outlier** is a result which lies beyond where most of the data is clustered.



Trinity TV

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Trinity TV > Year 8 > Maths > KO > Term 6