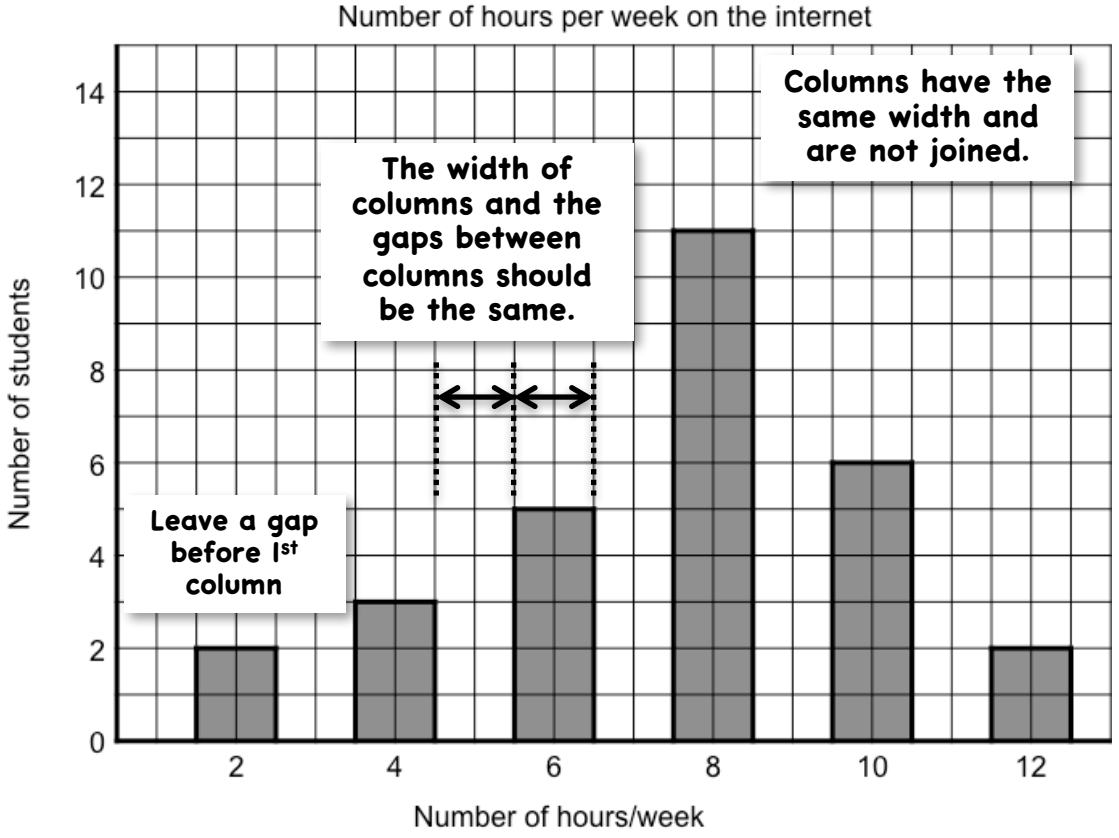
Graphs
All graphs need:
- A title
- Axes labelled

Column Graphs

*Column Graphs are used for **discrete** (counted) data. For example, eye colour of people, colours of cars.*

This table shows the number of hours spent on the internet by students.

Number of hours/week	2	4	6	8	10	12
Number of students	2	3	5	11	6	2



Values (dependent data) on the vertical axis.

Categories or independent data shown on the horizontal axis.

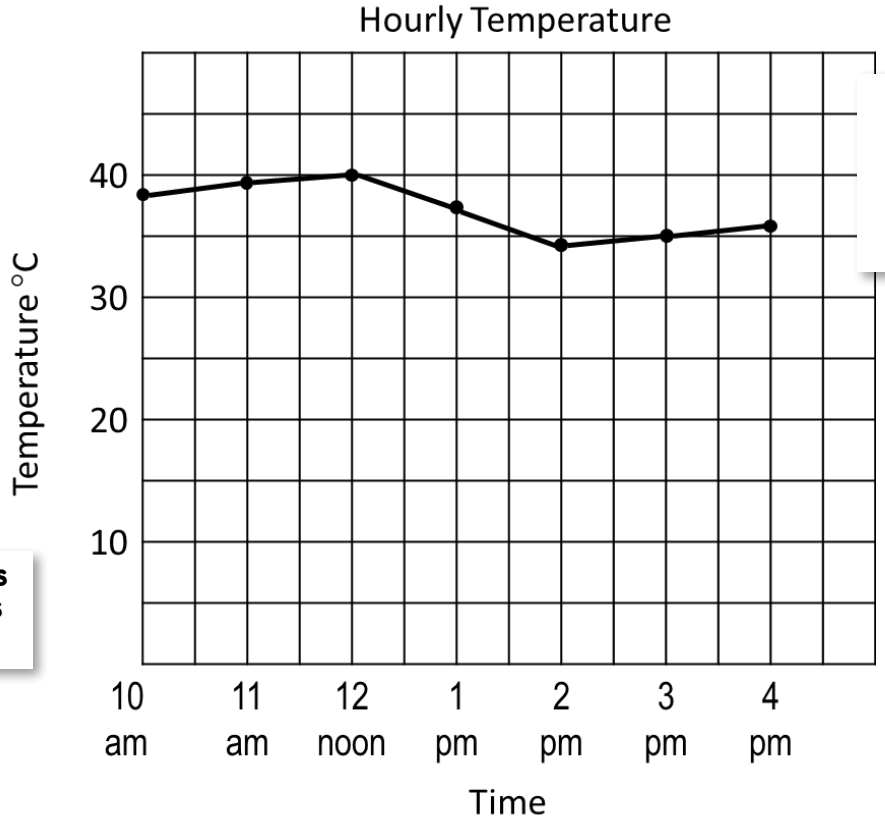
Graphs
All graphs need:
- A title
- Axes labelled

Line Graphs

*Line Graphs are used for **continuous** (measured) data.*
For example, height, temperature.

A line graph for a hospital patients temperature.

Time	10 am	11 am	12 noon	1 pm	2 pm	3 pm	4 pm
Temp ° C	38	39	40	37	34	35	36



Data is plotted using dots and connected with straight lines or curves.

Values (dependent data) on the vertical axis.

Vertical axis scale starts at zero.

Independent data shown on the horizontal axis.

Graphs
All graphs need:
- **A title**
- **Axes labelled**

A sector graph does not really have axes.

Sector Graphs (pie charts)

*Sector Graphs are used for **discrete** (counted) data.*
For example, favourite foods, favourite sports.

Sector graphs use sectors of a circle to represent data.
Sector graphs are also called pie charts because they look like a pie with pieces cut out.
Sector graphs are good for showing portions of a whole.

There are 360° in one revolution of a circle. Each sector is a fraction of 360°.

Example survey and calculations to determine the angles required to created a sector graph.

① Determine the fraction each category represents.
② Work out what angle represents this fraction (fraction of 360°).
③ Draw a circle using a compass. Draw each sector, measuring the angle using a protractor.

Favourite Sport	Number	① Fraction	② On your calculator (Instructions for Casio Scientific Calculator)	Angle size
Football	90	$\frac{90}{180}$	90 ÷ 180 × 360 =	180°
Soccer	45	$\frac{45}{180}$	45 ÷ 180 × 360 =	90°
Basketball	30	$\frac{30}{180}$	30 ÷ 180 × 360 =	60°
Tennis	15	$\frac{15}{180}$	15 ÷ 180 × 360 =	30°
Total	180			

Use division ÷ when the calculator does not have a fraction key.