Knowledge Organiser: Real-life Graphs (9a)
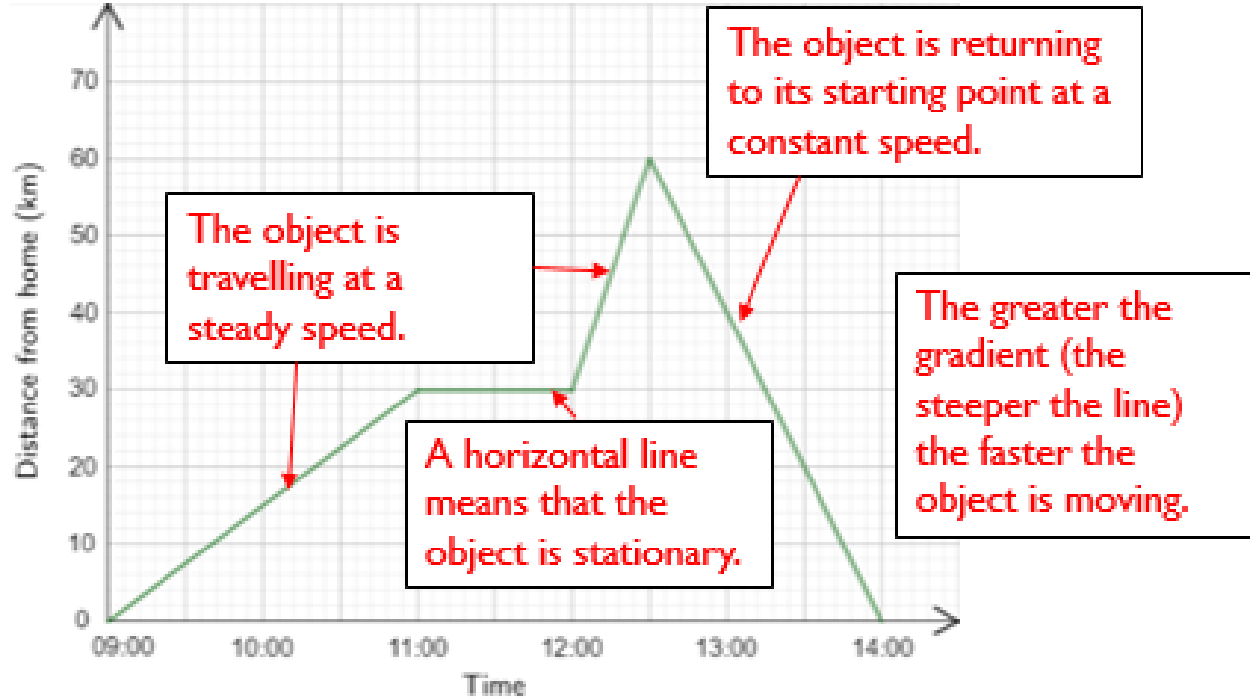
What you need to know: Interpret Real-life graphs

Example 1:

The object is returning to its starting point at a constant speed.

The object is travelling at a steady speed.

A horizontal line means that the object is stationary.

The greater the gradient (the steeper the line) the faster the object is moving.

The speed of an object can be calculated from the gradient of the graph.

E.g. calculate the speed at which the object travelled between 9am and 11am.

$$Speed = 30 \div 2$$
$$= 15 \ km/hr$$
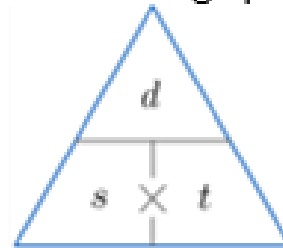
Key Terms:

- Journey
- Distance
- Horizontal
- Vertical
- Axis
- Conversion
- Starting point
- Gradient
- Constant
- Speed
- Represents

Hegarty maths clip numbers

Topic: Interpreting Real-life graphs - 894

Topic: Drawing Real-life Graphs - 895

Key Facts:

Draw and interpret real life graphs, including distance-time and conversion graphs

Understand how the vertical axis represents the distance from starting point.

Understand how the horizontal line on a distance time graph represents an object at rest.

The gradient of the line represents the speed of the journey

What you need to know:

Drawing a conversion graph

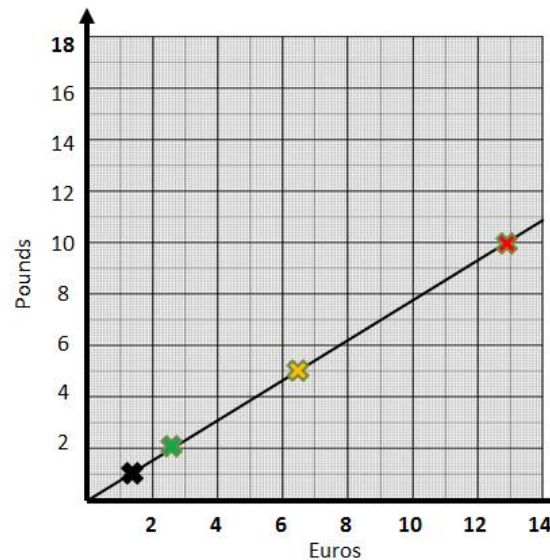You can plot known conversions on a graph to help you to convert other unknown amounts.

Current exchange rate
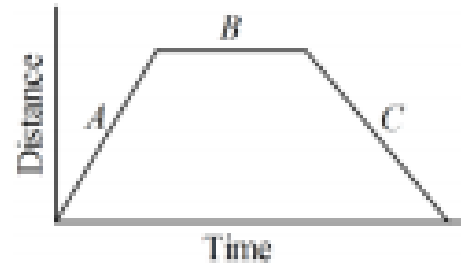£1 = € 1.29
£2 = € 2.58
£5 = € 6.45
£ 10 = € 12.90

Example 2: **Using the graph below, identify what A, B and C mean in terms of travel.**
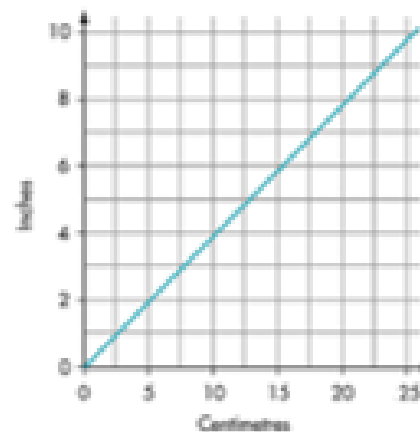

A = steady speed,

B = no movement,

C = steady speed back to start

Using a conversion graph

Conversion graphs can be used to convert between any 2 units which have a linear relationship.
Here, you can use the graph to convert between inches and centimetres

Example 3: Interpreting a conversion graph
Can you use the graph to convert 10 Pounds into Euros?

Answer = €12.90