

### Misleading graphs

- check the scale on the graph goes up in equal amounts
- scales should start on zero
- sometimes there is missing data
- make sure the right graph is being used.



### Year 8 Higher topic 4

#### Real life graphs

What careers would use these skills?

Architect will calculate the gradient when looking at the pitch of a roof, economist and engineers.

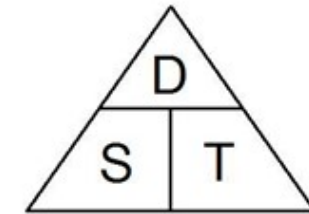
### Speed, distance, time calculations

James runs at a speed of 4 miles an hour, he runs for 2 hours, how far does he run?

$$D = S \times T$$

$$D = 4 \times 2$$

$$= \underline{8 \text{ miles}}$$



### Direct proportion graphs

- The graph is a straight line that goes through the origin
- If one variable is multiplied by n, so is the other



A is in direct B and C are not

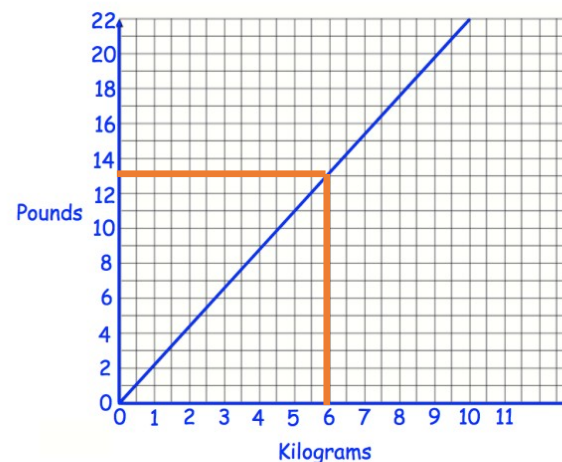
### Conversion graphs

This graph can be used to convert between kilograms and pound.

Eg. Convert 6kg to lb.

Draw a line up from 6kg until you hit the graph, then draw a line left and read off the number of pounds.

So 6kg is approximately 13 lb.



### Distance time graph example

You can find the speed from the gradient of the line (Distance ÷ Time)

The steeper the line, the quicker the speed.

A horizontal line means the object is not moving, it is stationary.

The y axis shows the distance from the starting point, the first 2 hours on the graph below how an object moving away, the middle 3 hours are when the object is stationary and the last 4 hours show the object moving back to the starting point.

