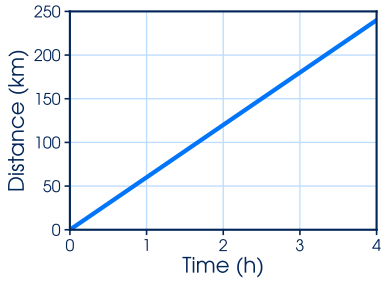
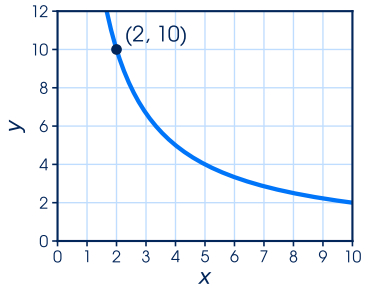
GCSE HIGHER · REVISION MAT 2

Gradients and proportion graphs

1 Find the speed.



2 Find the equation of this curve.

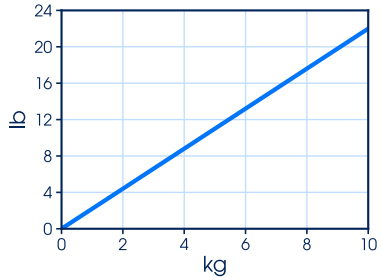


3 Which of these show proportion?

$y = 4x$ $y = \frac{4}{x}$ $y = x + 4$

4 What does the gradient show?

Convert 35 kg to pounds (lb).



5 Show that (4, 5) and (10, 2) lie on $y = \frac{20}{x}$.

6 The lines $y = 3x$ and $y = 5x$ are drawn.

At $y = 30$, how far apart are they horizontally?

7 Explain why the gradient of a distance–time graph is the speed.

8 The time for a job is $t = \frac{24}{n}$ hours with n workers.

Find t for 5 workers.

How many workers finish in less than 3 hours?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Gradients and proportion graphs

1 $\frac{240}{4}$

60 km/h

2 $xy = 20$

$y = \frac{20}{x}$

3 **$y = 4x$ (direct) and**

$y = \frac{4}{x}$ (inverse)

4 Gradient 2.2: lb per kg

77 lb

5 $4 \times 5 = 20$ ✓

$10 \times 2 = 20$ ✓

6 $x = 10$ and $x = 6$

4 units

7 **Gradient = distance ÷ time = speed.**

8 **4.8 hours**

$\frac{24}{n} < 3 \Rightarrow n > 8$

9 workers