

Edexcel GCSE

Mathematics (Linear) – 1MA0

CONVERSION

GRAPHS

Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
Tracing paper may be used.

Items included with question papers

Nil

**Instructions**

Use black ink or ball-point pen.

Fill in the boxes at the top of this page with your name, centre number and candidate number.

Answer all questions.

Answer the questions in the spaces provided – there may be more space than you need.

Calculators may be used.

Information

The marks for each question are shown in brackets – use this as a guide as to how much time to spend on **each** question.

Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed – you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.

Advice

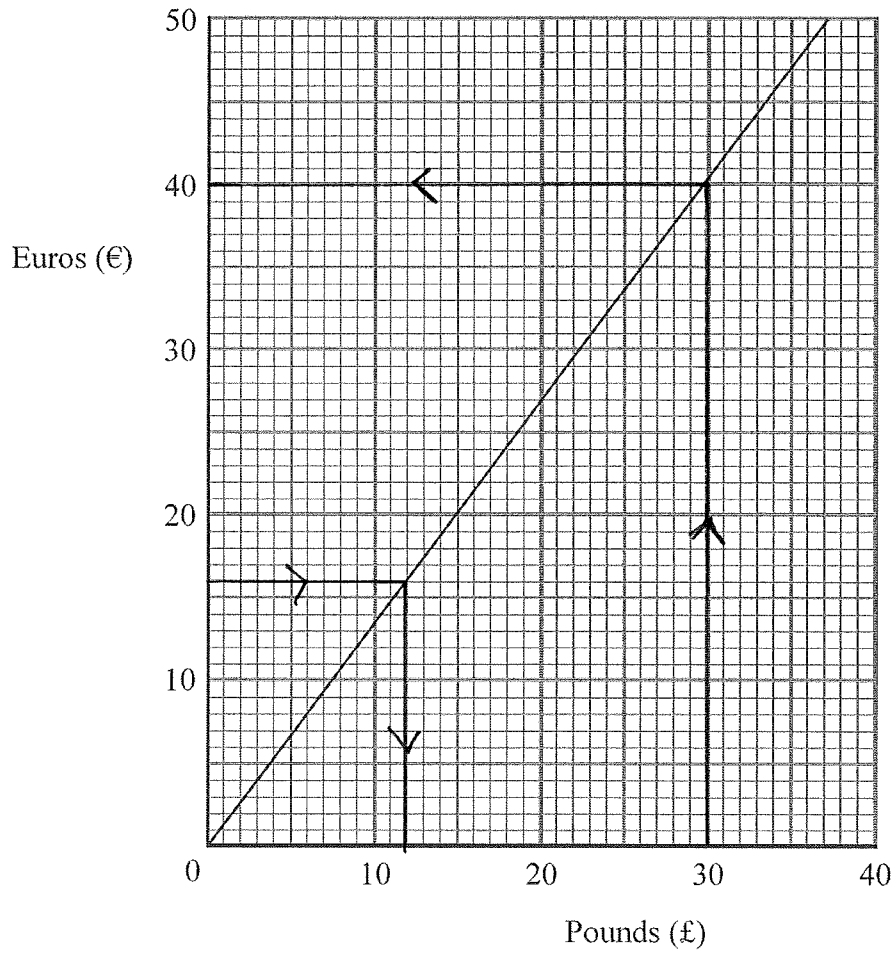
Read each question carefully before you start to answer it.

Keep an eye on the time.

Try to answer every question.

Check your answers if you have time at the end.

1. The conversion graph can be used to change between pounds (£) and Euros (€).



(a) Use the graph to change 30 pounds to Euros.

€ 40

(1)

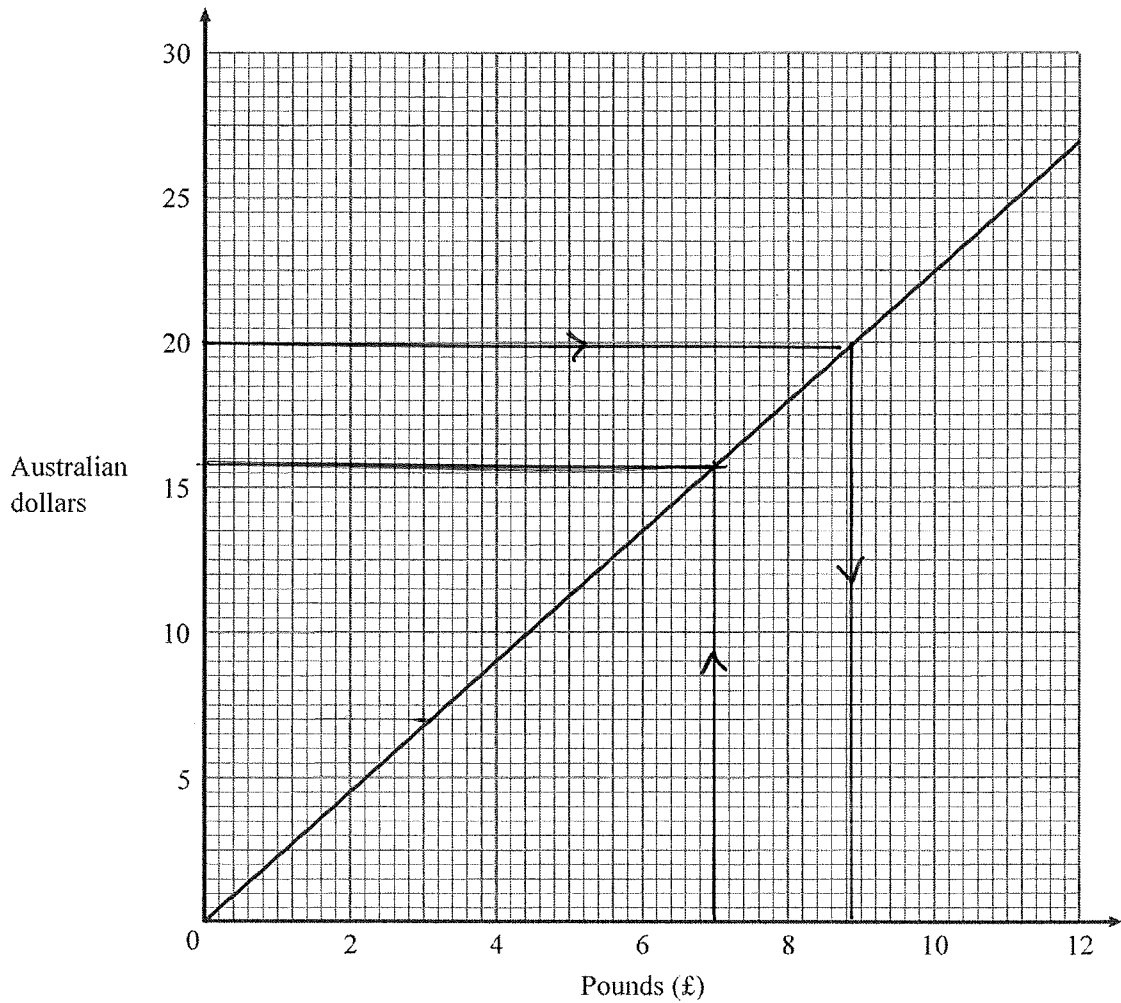
(b) Use the graph to change 16 Euros to pounds.

£ 12

(1)

(Total 2 marks)

2. Here is a conversion graph between pounds (£) and Australian dollars.



(a) Change 20 Australian dollars to pounds.

£ 8.80

(1)

(b) Change £7 to Australian dollars.

..... 16 Australian dollars

(1)

(c) Change £400 to Australian dollars.

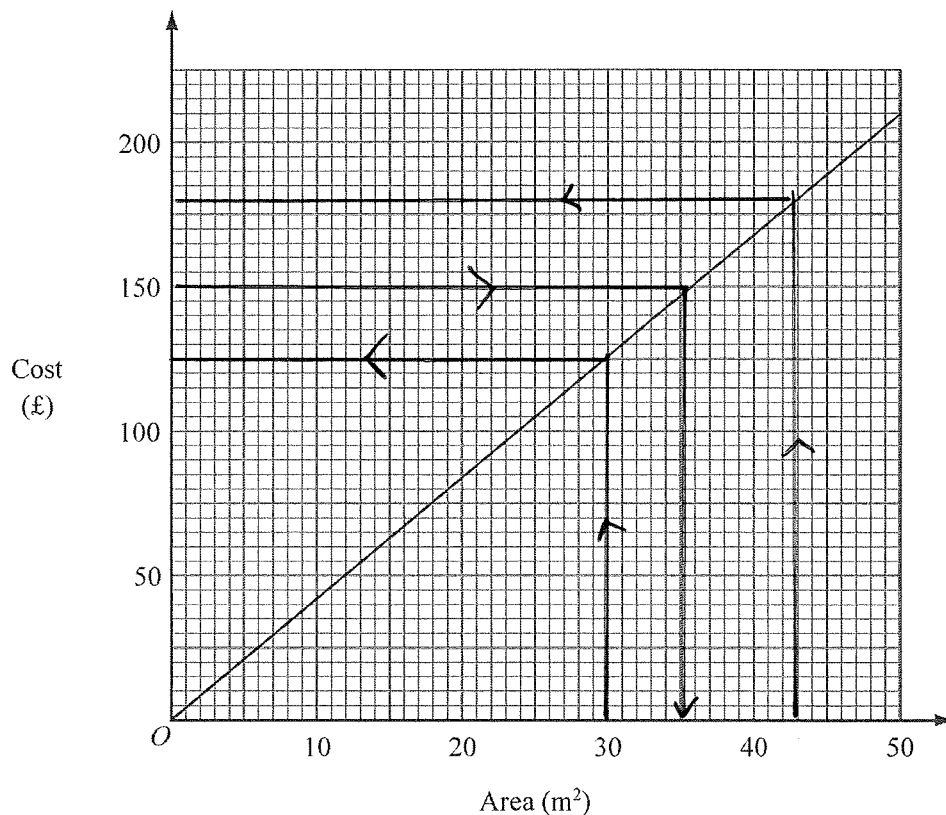
..... 900 Australian dollars

(2)

£ 4 = 9 Australian from graph (Total 4 marks)

So £400 = 900 Australian

3. John cleans carpets of different areas.
He uses this graph to work out the cost of cleaning a carpet.



A carpet has an area of 30 m^2 .

- (a) Use the graph to find the cost of cleaning this carpet.

£125.....

(1)

It costs £150 to clean another carpet.

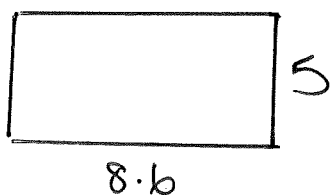
- (b) Use the graph to find the area of this carpet.

.....35..... m^2

(1)

A rectangular carpet has a length of 8.6 m.
It has a width of 5 m.

- (c) Work out the cost of cleaning this carpet.



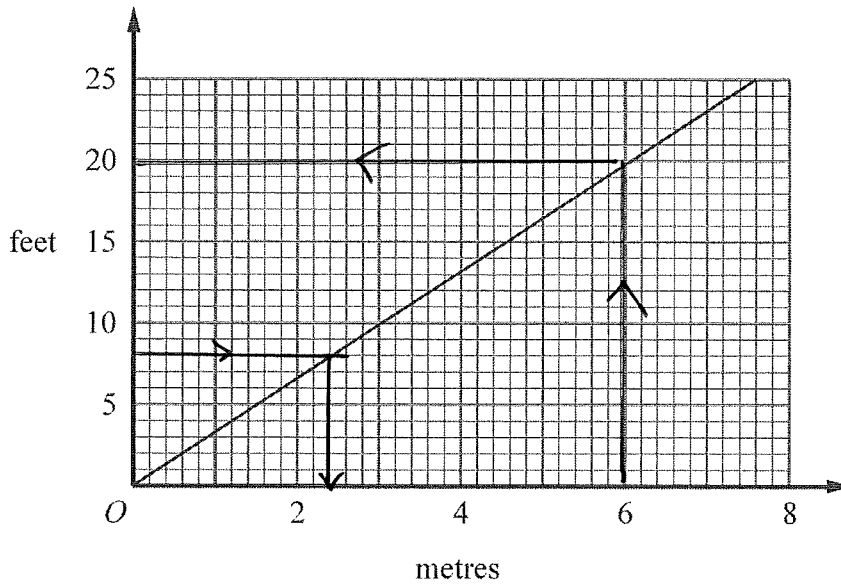
$$5 \times 8.6 = 43 \text{ m}^2$$

£180.....

(3)

(Total 5 marks)

4.



This conversion graph can be used to change between metres and feet.

(a) Use the conversion graph to change 6 metres to feet.

..... 20 feet

(1)

(b) Use the conversion graph to change 8 feet to metres.

..... 2.2 metres

(1)

Robert jumps 4 metres.

James jumps 12 feet.

(c) (i) Who jumps furthest, Robert or James?

4 metres = 13 feet (graph)
Robert

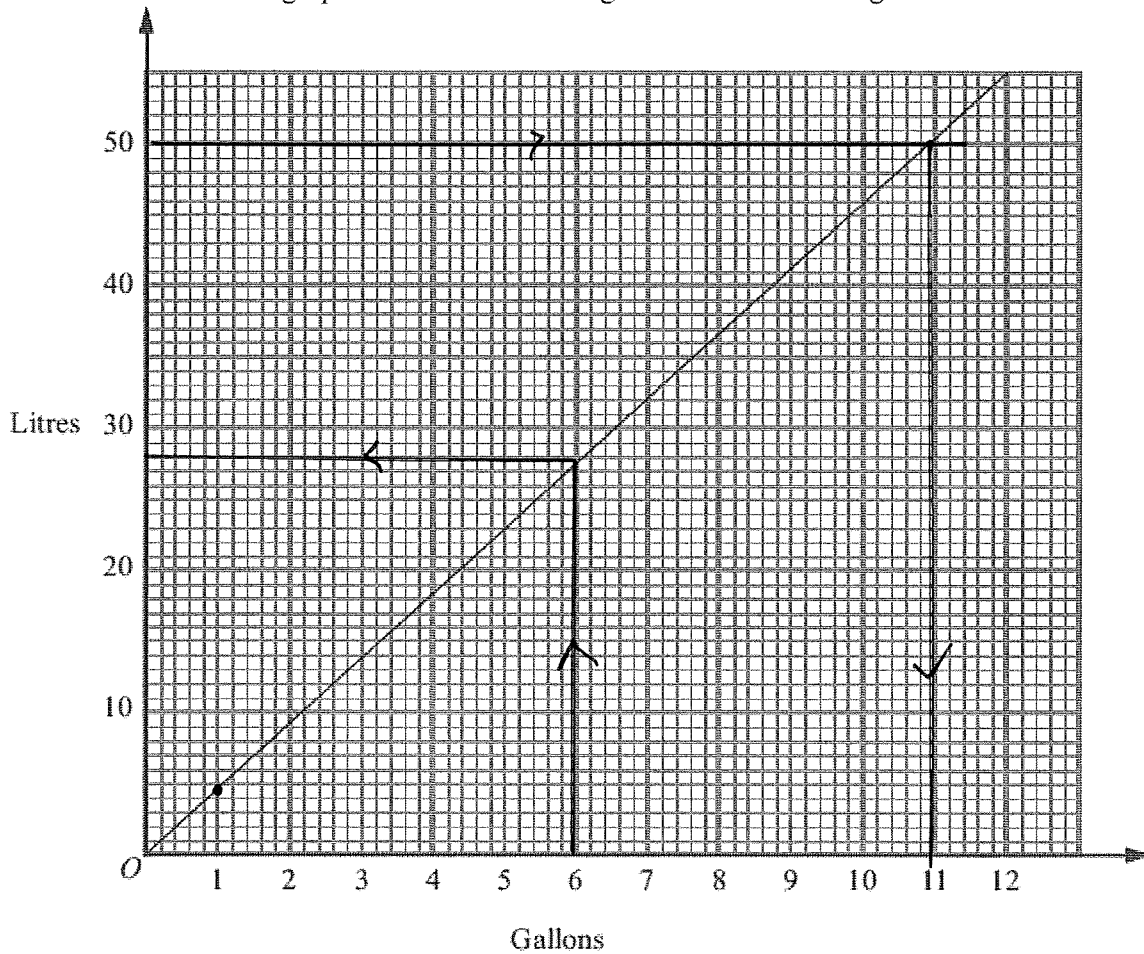
(ii) How did you get your answer?

4 metres = 13 feet from the graph
which is more than James at 12 feet

(2)

(Total 4 marks)

5. This conversion graph can be used to change between litres and gallons.



(a) Use the graph to change 50 litres to gallons.

.....11..... gallons
(1)

(b) Use the graph to change 6 gallons to litres.

.....28..... litres
(1)

1 litre of petrol costs £1.15

(c) Work out the cost of 50 litres of petrol.

$$50 \times 1.15 =$$

£57.50.....
(2)

(d) Work out an estimate for the cost of 1 gallon of petrol.

1 gallon \approx 4 litres (from graph)

£6.....
(2)

$$4 \times 1.15 = \frac{1}{2}6$$

(Total 6 marks)

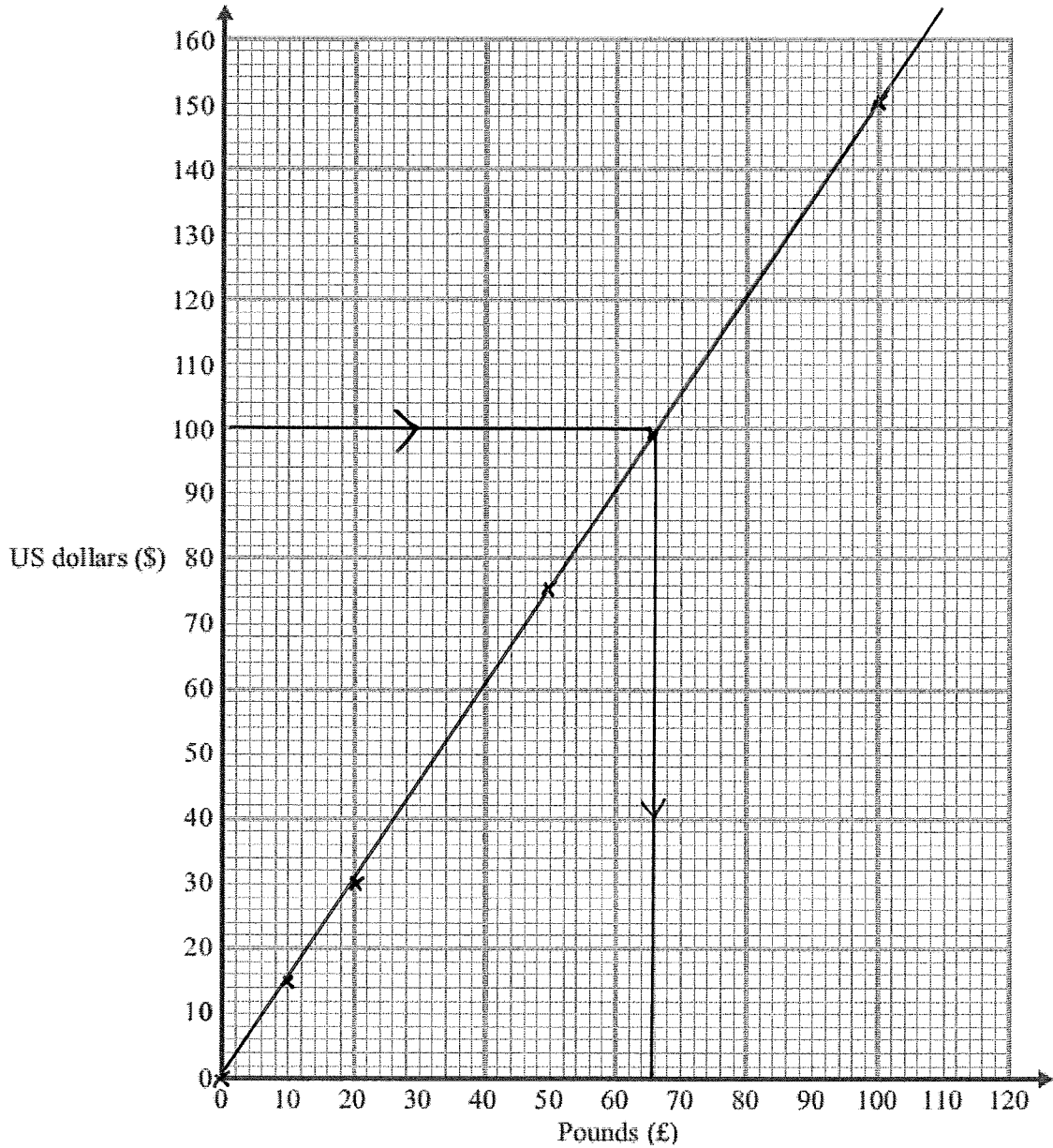
6. The exchange rate to change pounds (£) into US dollars (\$) is £1 = \$1.50

(a) Use this exchange rate to complete the table below.

Pounds (£)	0	1	2	5	10	20	50	100
US dollars (\$)	0	1.50	3	7.50	15	30	75	150

(2)

(b) On the grid, draw a conversion graph for converting between pounds and US dollars.



(2)

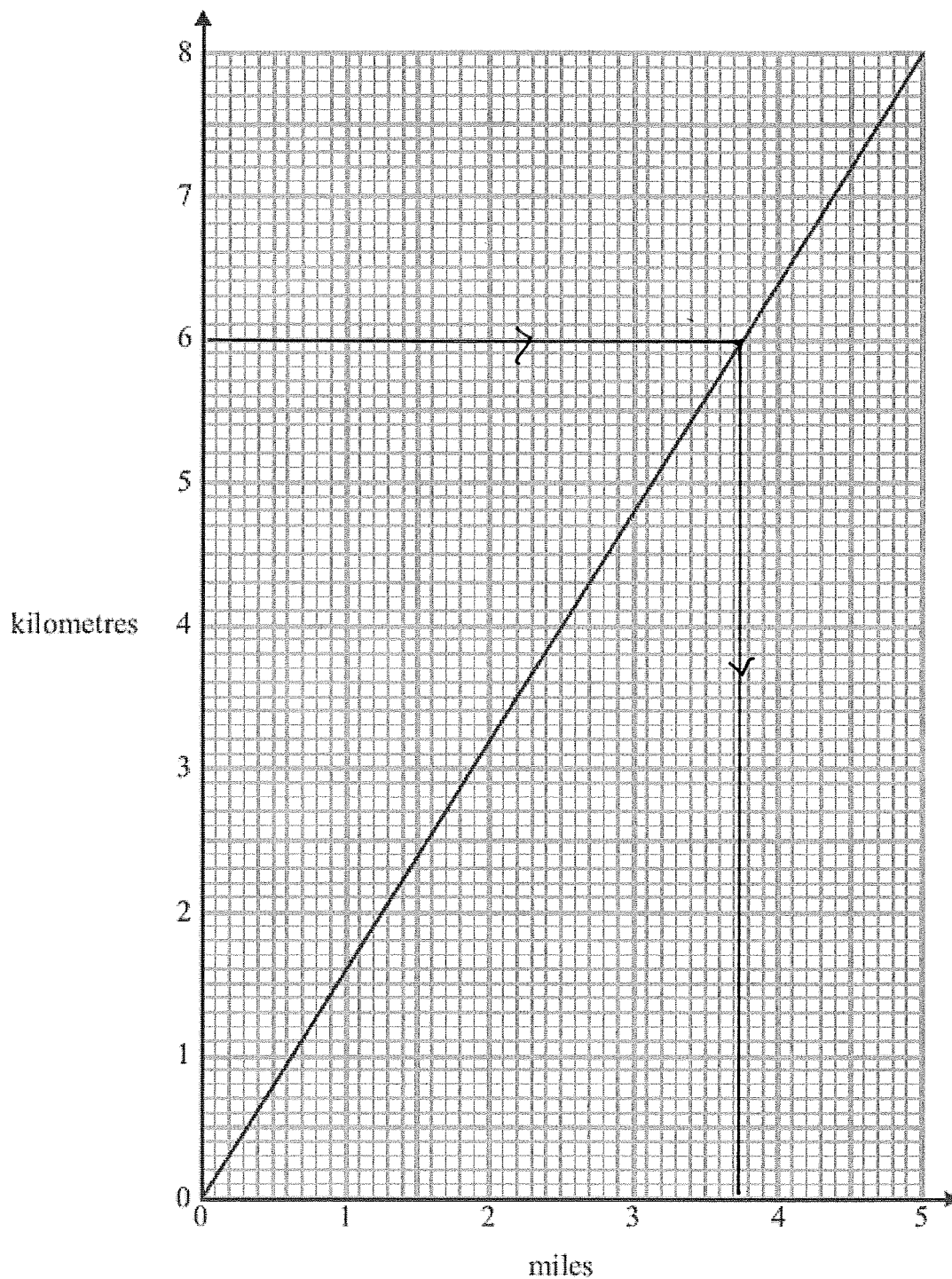
(c) Change \$100 into pounds (£).

£ *66*

(2)

(Total 6 marks)

7. You can use the graph to change between miles and kilometres.



Change 60 kilometres into miles.

$$6 \text{ km} \approx 3.75 \text{ miles}$$

$$60 \text{ km} \approx 37.5$$

..... 37.5 miles

(Total 3 marks)