3.4 Conversion Graphs

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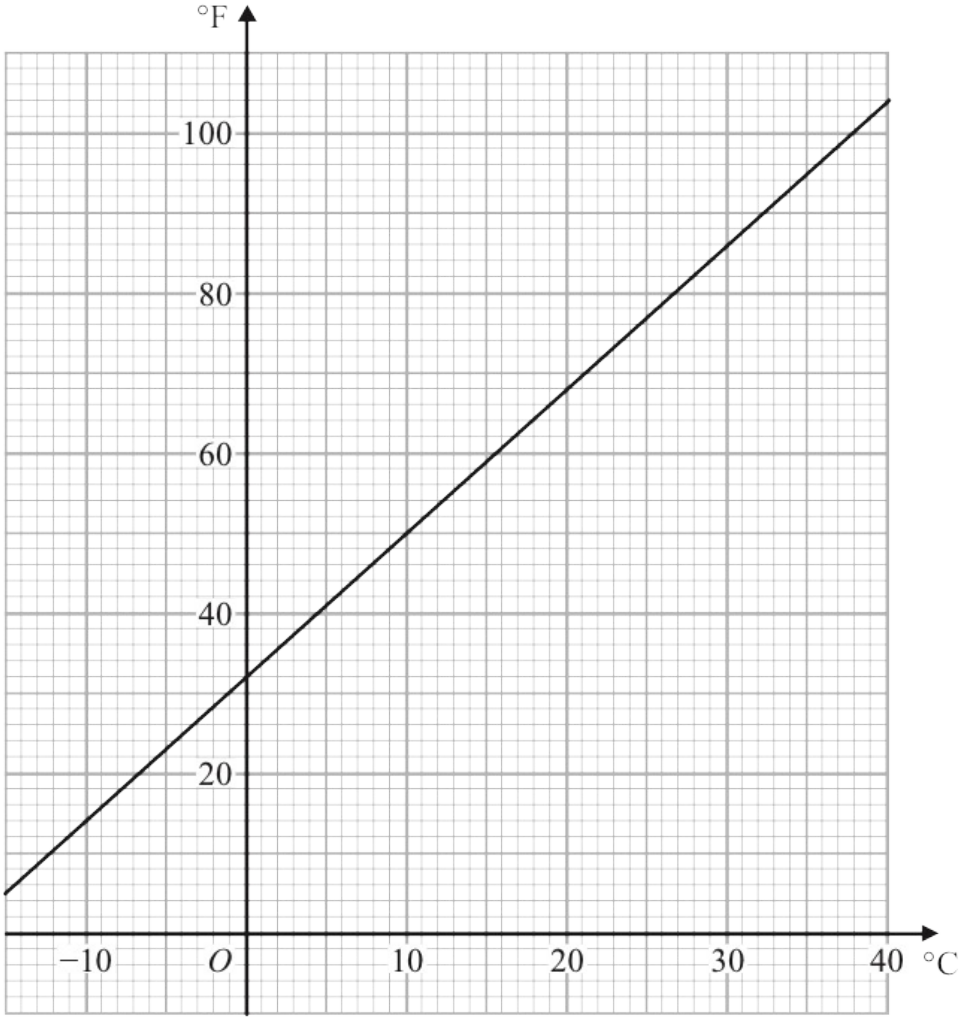
9 You can use this graph to change between temperatures in degrees Celsius (°C) and temperatures in degrees Fahrenheit (°F).



The temperature in Dubai on Monday increased by 20 °C from midnight to midday.

(a) What is this temperature increase in degrees Fahrenheit?

..... °F

(2)

Maninder says,

"30 °C is the same as 86 °F, therefore 60 °C will be the same as 172 °F."

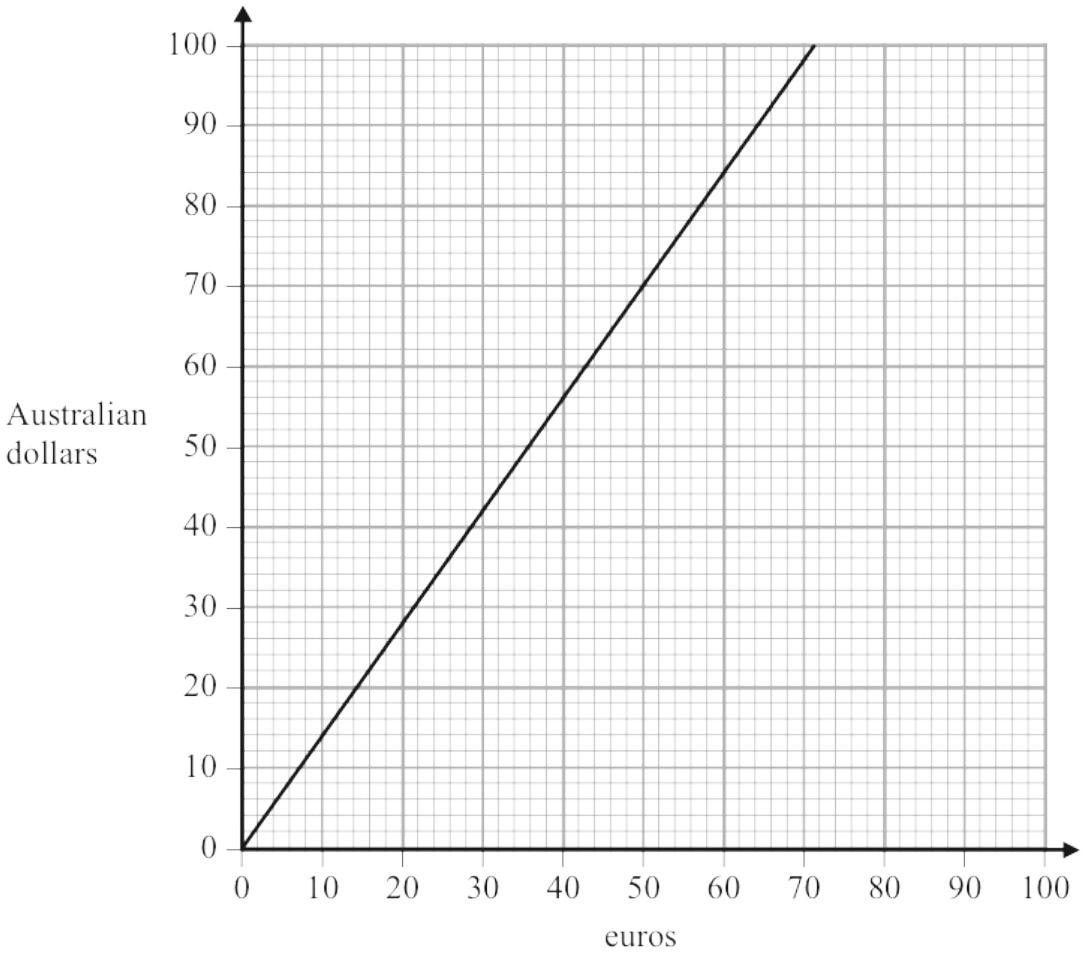
(b) Is Maninder correct?
Give a reason for your answer.

.....

.....

(1)

13 Here is a conversion graph to change between euros and Australian dollars.



(a) Use the graph to change

(i) 50 euros to Australian dollars,

.....Australian dollars

(ii) 90 Australian dollars to euros.

.....euros

(2)

Sheila is on holiday in Italy and is going to the United Arab Emirates.
She knows that

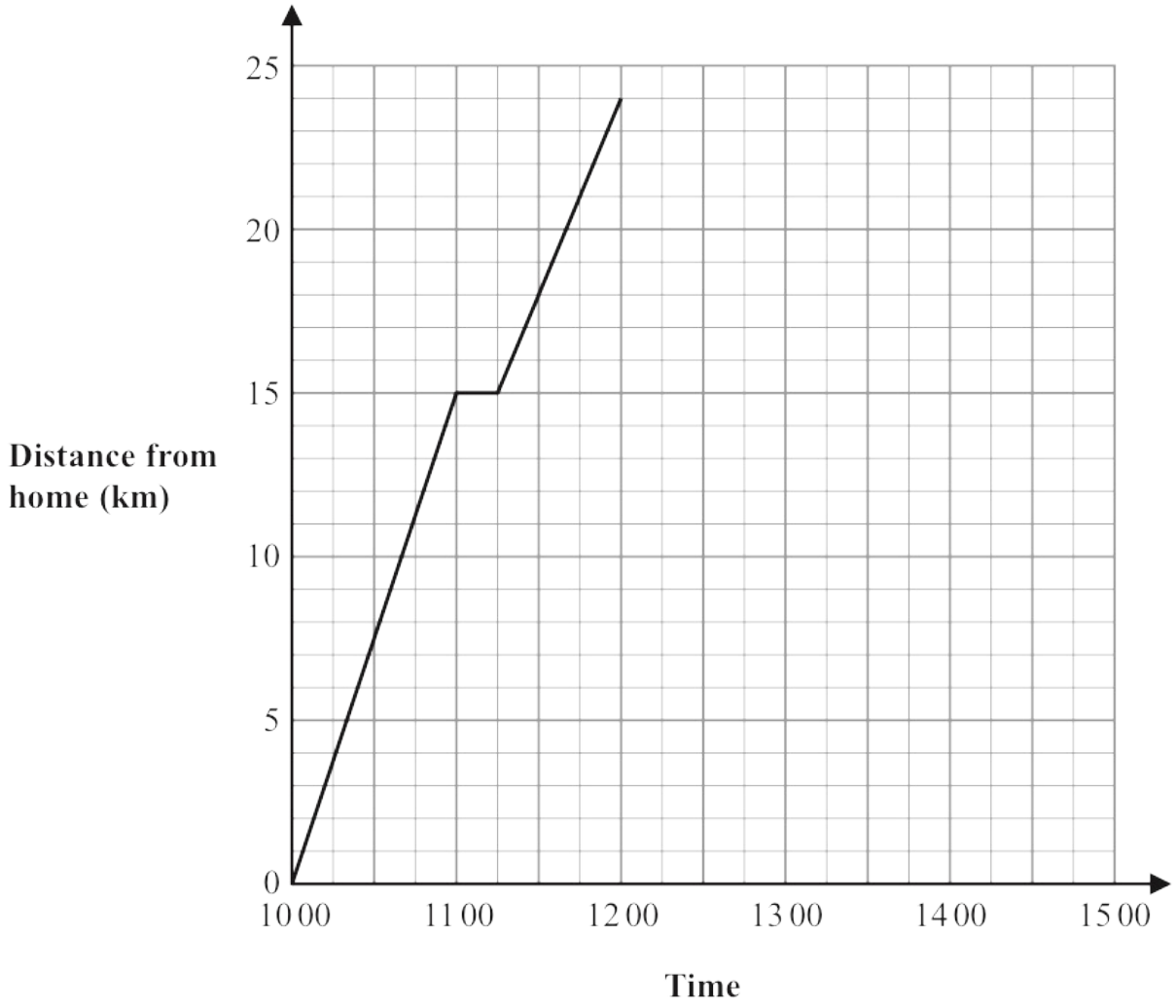
1 Australian dollar = 2.7 dirhams

(b) Change 500 euros to dirhams.

.....dirhams

(3)

15 Jalina left her home at 10 00 to cycle to a park.
On her way to the park, she stopped at a friend's house and then continued her journey to the park.
Here is the distance-time graph for her journey to the park.



(a) On her journey to the park, did Jalina cycle at a faster speed before or after she stopped at her friend's house?
Give a reason for your answer.

.....

.....

.....

(1)

Jalina stayed at the park for 45 minutes.
She then cycled, without stopping, at a constant speed of 16 km/h from the park back to her home.

(b) Show all this information on the distance-time graph.

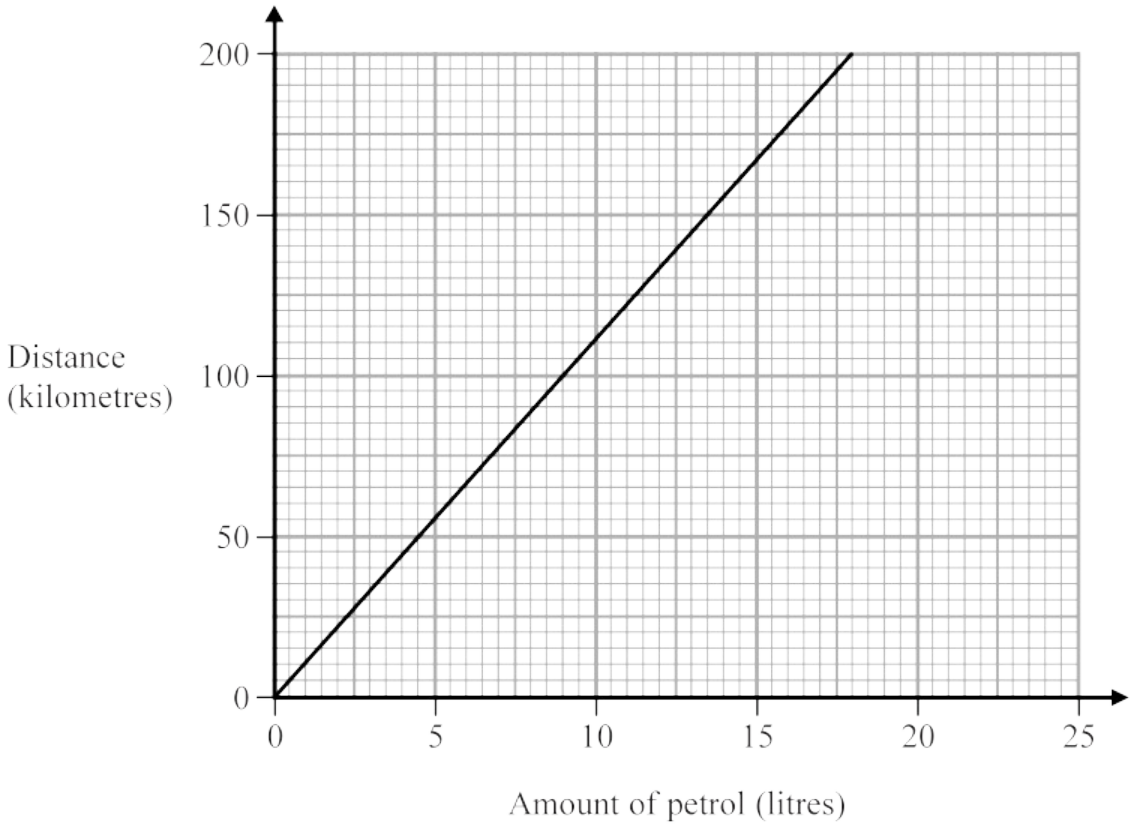
(2)

(c) Work out Jalina's average cycling speed, in kilometres per hour, for the complete journey to the park and back.
Do **not** include the times when she was not cycling in your calculation.
Give your answer correct to 1 decimal place.

..... km/h

(3)

15 This graph can be used to find the distance travelled, in kilometres, by Chuck's car and the amount of petrol, in litres, used.



Chuck travels 150 kilometres in his car.

(a) Using the graph, find the amount of petrol used.

..... litres

(1)

Chuck lives in Fiji.
He puts petrol into the petrol tank of his car.
This petrol costs him 16.24 Fiji dollars.

1 litre of petrol in Fiji costs 2.03 Fiji dollars.

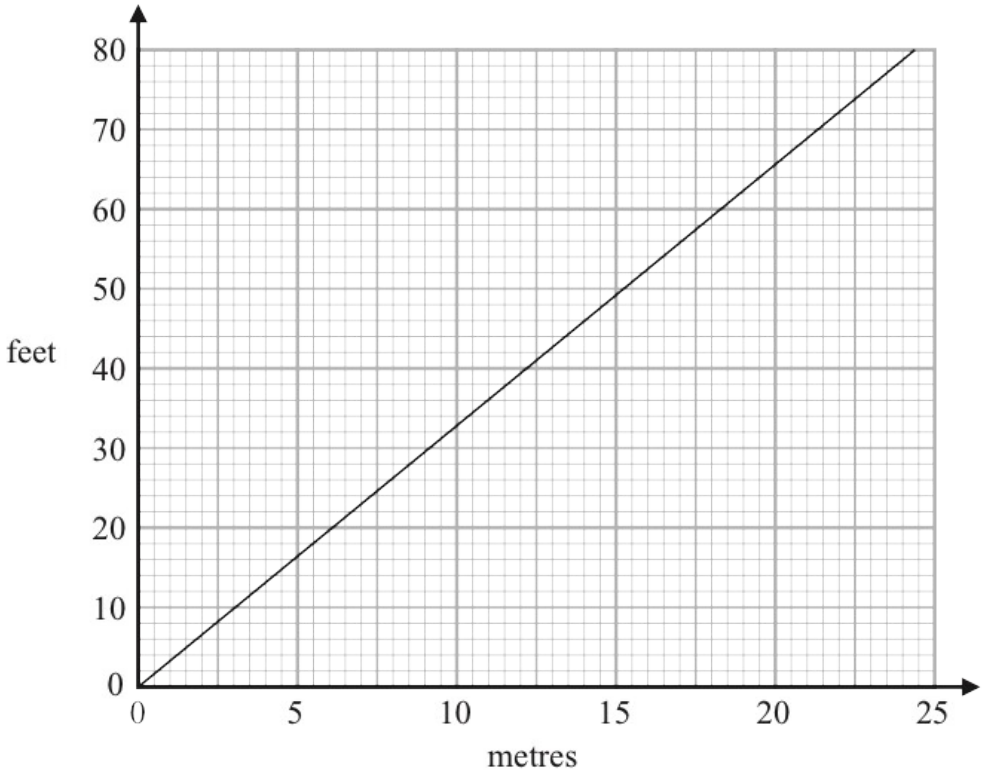
(b) Find the distance that Chuck's car travels on the petrol he put in his car.

..... kilometres

(3)

(Total for Question 15 is 4 marks)

9 Below is a conversion graph to change between metres and feet.



(a) Use the graph to change

(i) 10 metres to feet,

.....feet

(ii) 50 feet to metres.

.....metres

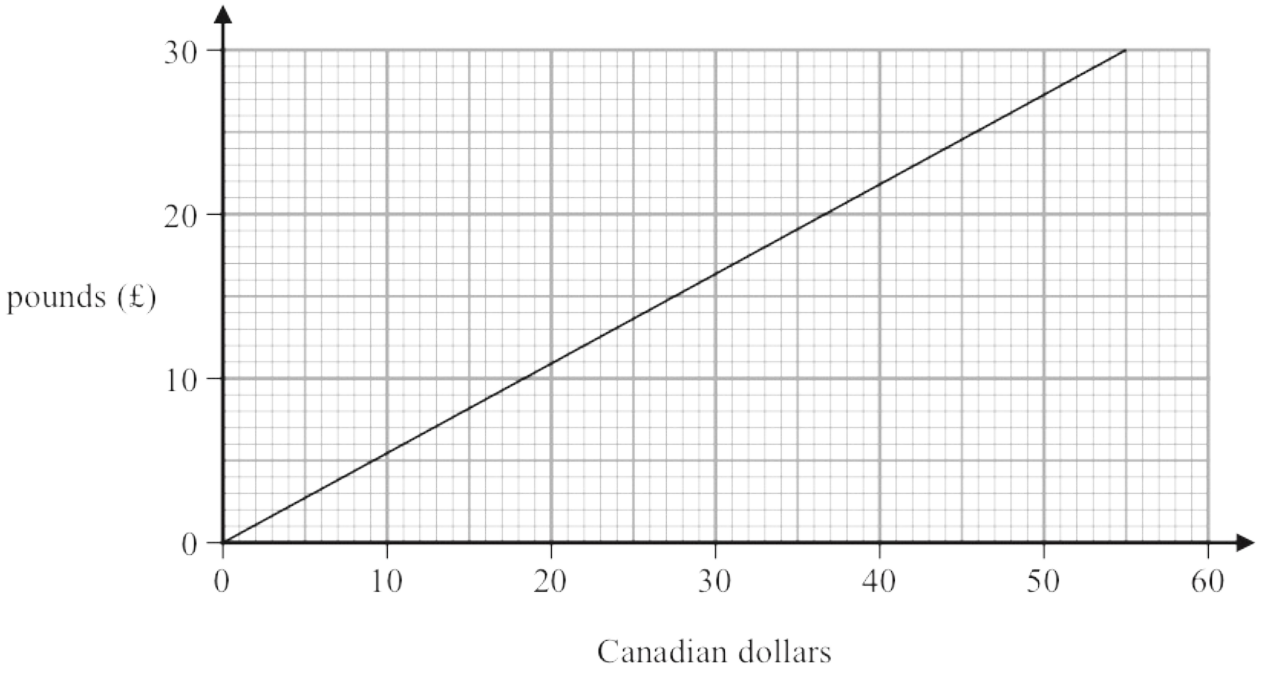
(2)

Joss lives 820 metres above sea level.
Nicky lives 2850 feet above sea level.

(b) Which is the greater, 820 metres or 2850 feet?
You must show how you get your answer.

(2)

13 Here is a conversion graph to change between Canadian dollars and pounds (£)



(a) Use the graph to change

(i) 46 Canadian dollars to pounds (£)

£.....

(ii) £10 to Canadian dollars.

..... Canadian dollars

(2)

Alana is on holiday in London and is going to Paris.
She is going to book a hotel in Paris.
She knows that

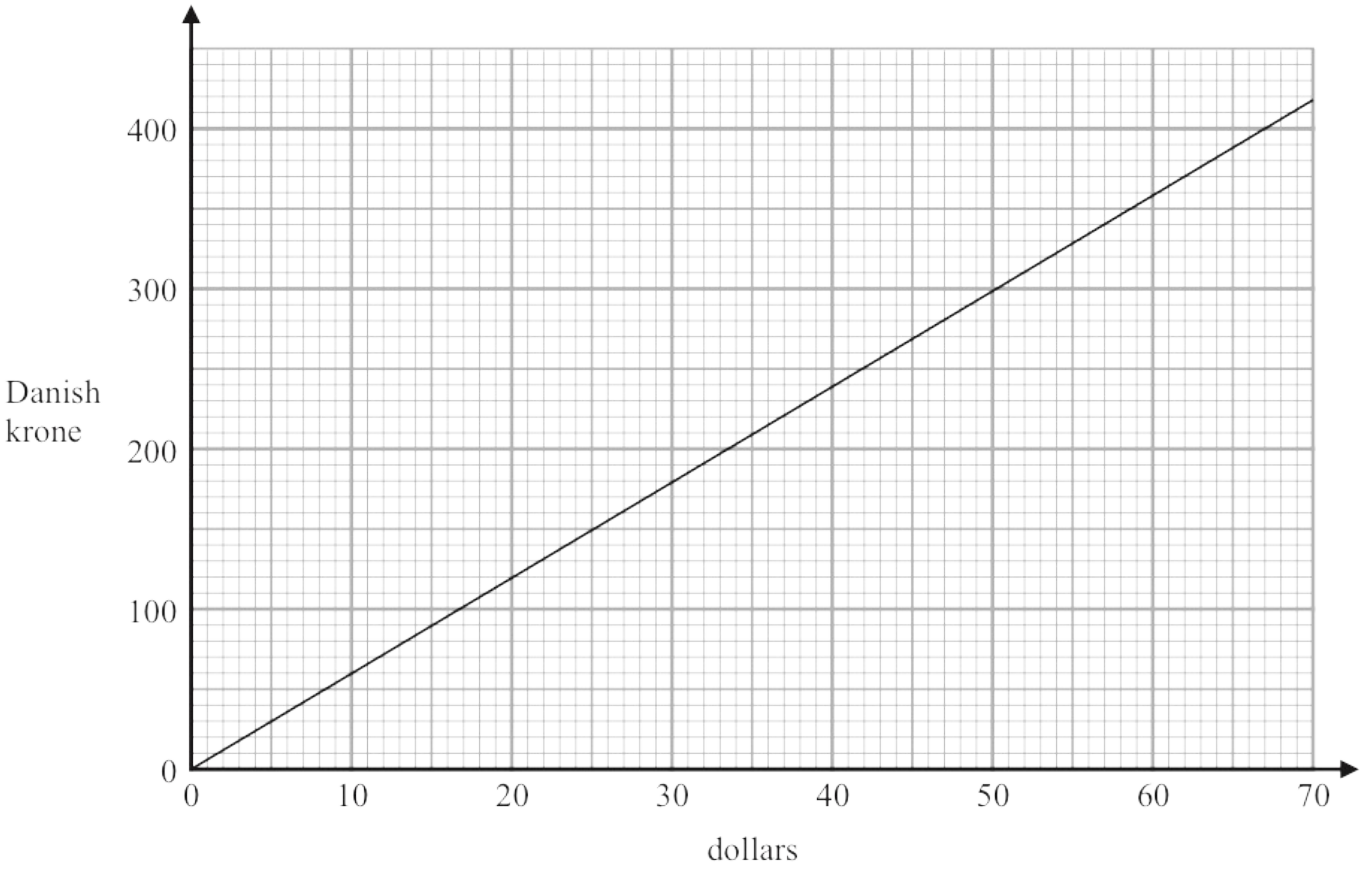
1 pound (£) = 1.2 euros

(b) Change 528 euros to Canadian dollars.

..... Canadian dollars

(3)

10 The graph below can be used to change between dollars and Danish krone.



(a) Change 40 dollars to Danish krone.

..... Danish krone

(1)

(b) Change 350 Danish krone to dollars.

..... dollars

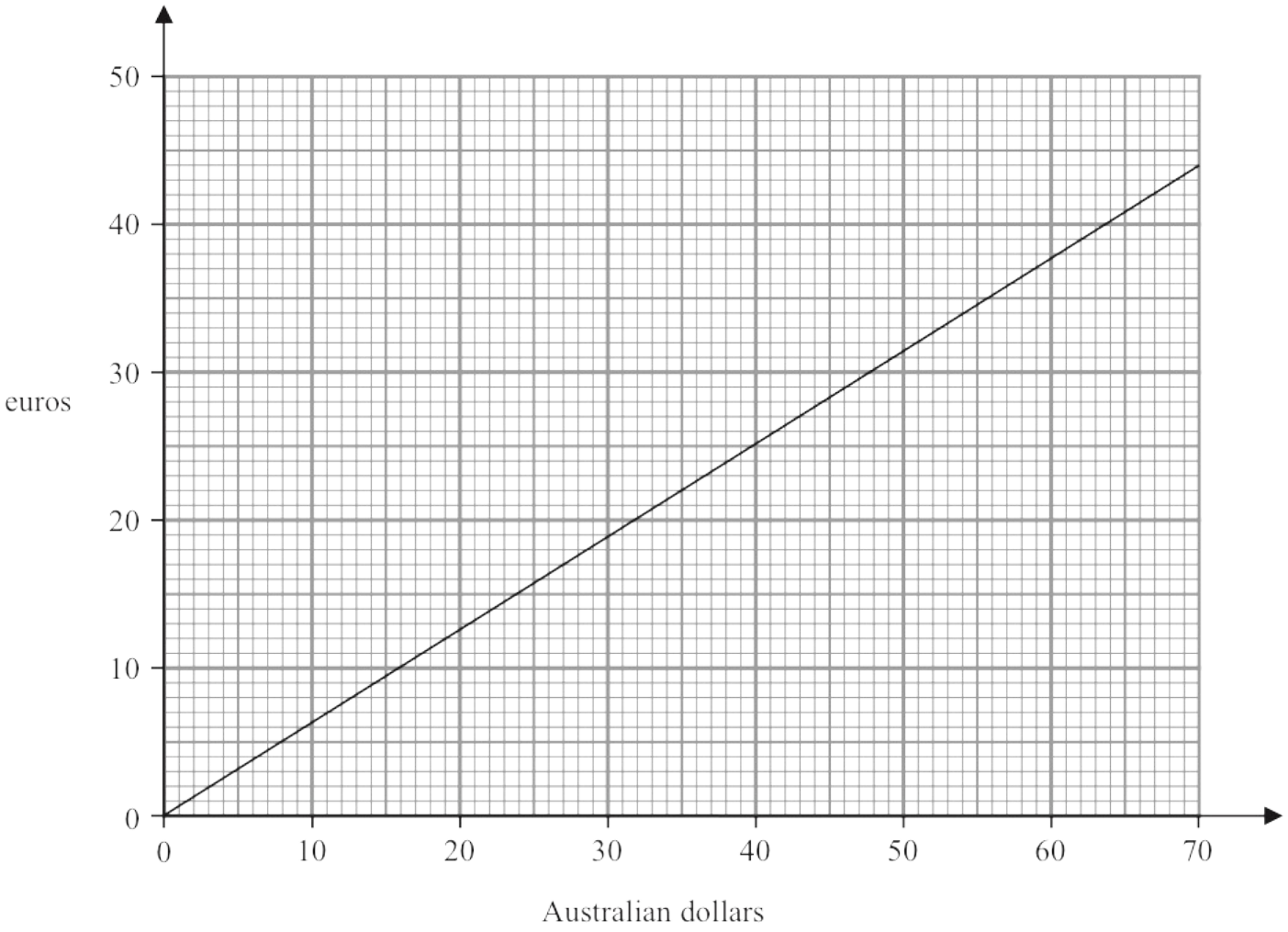
(1)

Robert needs 950 Danish krone to pay for a hotel stay.
He has 170 dollars.

(c) Show that Robert has enough money to pay for his hotel stay.

(2)

11 The graph below can be used to change between Australian dollars and euros.



(a) Use the graph to change

(i) 35 Australian dollars to euros

..... euros

(1)

(ii) 20 euros to Australian dollars

..... Australian dollars

(1)

Lachlan changes 500 Australian dollars to euros.

(b) Work out how many euros he should receive.

..... euros

(2)