

Write your name here

Surname

Other names

Centre Number

Candidate Number

Edexcel GCSE**Mathematics A****Paper 2 (Calculator)****Foundation Tier**

Mock Paper

Time: 1 hour 45 minutes

Paper Reference

1MA0/2F

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.

Total Marks

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.**
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

**Information**

- The total mark for this paper is 100.
- 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.

Turn over ►

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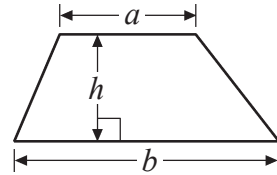
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GCSE Mathematics 2544

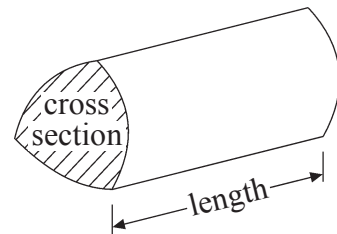
Formulae: Foundation Tier

**You must not write on this formulae page.
Anything you write on this formulae page will gain NO credit.**

Area of trapezium = $\frac{1}{2}(a + b)h$



Volume of prism = area of cross section \times length



Answer ALL questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

1



(a) Write down the number marked by the arrow.

(1)



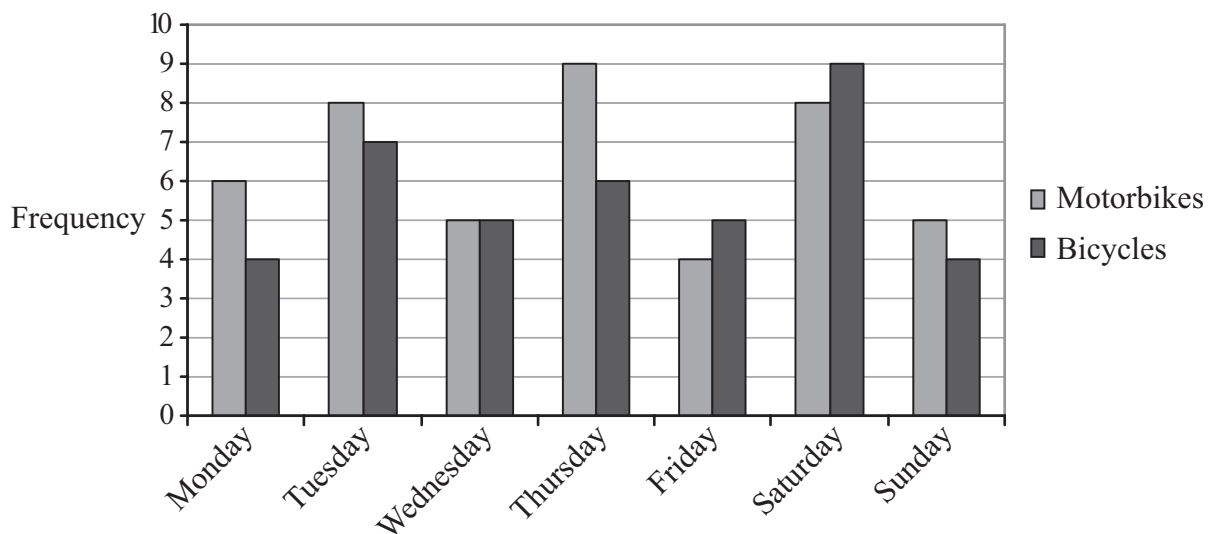
(b) Find the number 480 on the number line.

Mark it with an arrow (↑).

(1)

(Total for Question 2 = 2 marks)

- 2 Laura carried out a traffic survey.
The dual bar chart shows information about the number of motorbikes and the number of bicycles she counted.



- (a) Write down the number of bicycles Laura counted on Saturday.

(1)

.....

One day Laura counted the same number of motorbikes and bicycles.

- (b) Which day?

(1)

.....

Laura counted more motorbikes than bicycles in her traffic survey.

- (c) How many more?

(2)

.....

(Total for Question 2 = 4 marks)

3 Here is a list of numbers.

2 7 9 12 15

From the list, write down

(i) an odd number

.....

(ii) a square number

.....

(iii) a multiple of 6

.....

(iv) a factor of 30

.....

(Total for Question 3 = 4 marks)

4 Greg thinks of a number.
He multiplies the number by 4
He then subtracts 15
His answer is 9

What number did Greg think of?

.....

(Total for Question 4 = 2 marks)

- 5 Michael goes into a café.
He wants to buy a sandwich and a drink.

Menu	
Sandwiches	Drinks
Prawn	Tea
Ham	Coffee
Salad	Juice

Write down all the possible combinations of a sandwich and a drink Michael can buy.

.....

.....

.....

(Total for Question 5 = 2 marks)

- 6 Here are seven numbers.

2 7 2 7 2 5 3

(a) Write down the mode. (1)

.....

(b) Work out the range. (2)

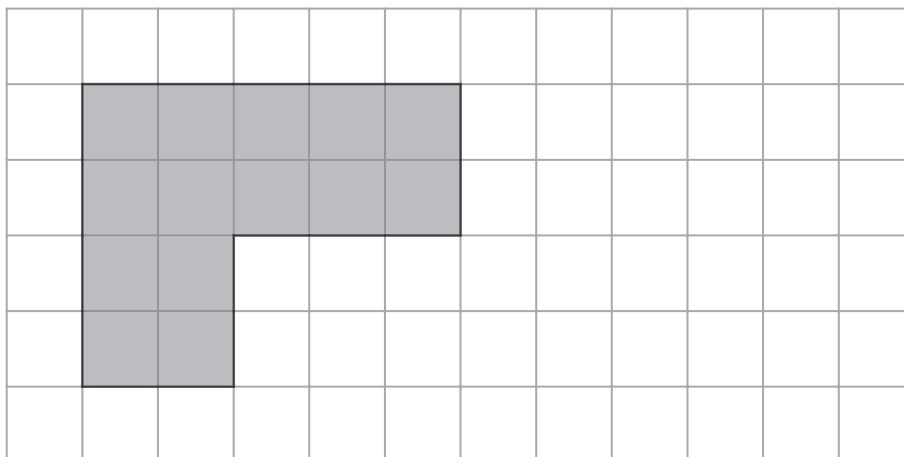
.....

(c) Work out the mean. (2)

.....

(Total for Question 6 = 5 marks)

7 The shaded shape is drawn on a grid of centimetre squares.



(a) Find the perimeter of the shaded shape.

(1)

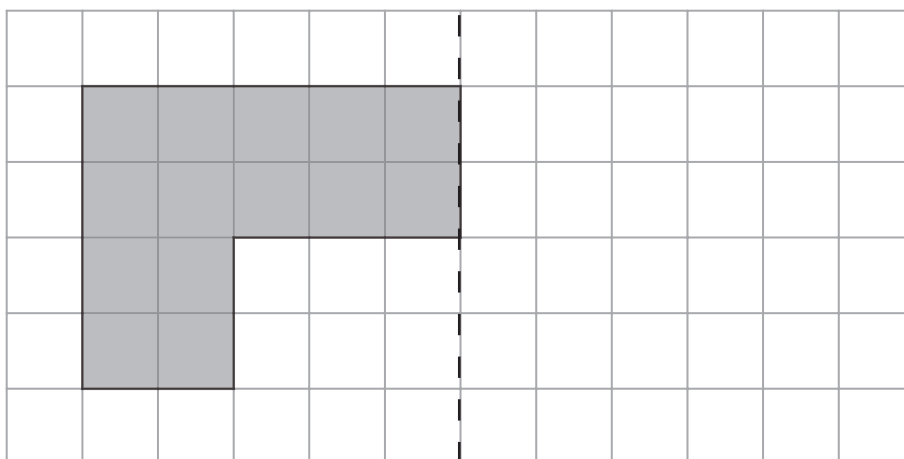
..... cm

(b) Find the area of the shaded shape.

(1)

..... cm²

Mirror Line



(c) Reflect this shaded shape in the mirror line.

(1)

(Total for Question 7 = 3 marks)

8 Jerry goes into a shop.

Prices	
Magazine	£2.40
Newspaper	90p
Bottle of water	£1.10

Jerry has £10

He buys one magazine and one newspaper.
He also buys as many bottles of water as possible.

(i) Work out how many bottles of water he buys.

.....

Jerry pays with a £10 note.

(ii) Work out how much change he should get.

.....

(Total for Question 8 = 4 marks)

9 (a) Complete this table.

Write a sensible unit for each measurement.
Two have been done for you.

(2)

	Metric	Imperial
Height of a man	metres
Volume of water in a pond	gallons

(b) Change 3500 grams to kilograms.

(1)

..... kilograms

(Total for Question 9 = 3 marks)

10 The table shows some information about the number of medals won by each of 5 countries at the 2010 Winter Olympics.

Country	Medals			Total
	Gold	Silver	Bronze	
United States	9	15	13	37
Germany	10	7	30
Canada	14	7	5	26
Norway	9	8	6
Austria	4	6	6	16

(a) Complete the table for Germany and Norway.

(2)

(b) How many silver medals did the United States win?

(1)

.....

For one country, the number of gold medals was more than half of its total number of medals.

(c) Which country?

(1)

.....

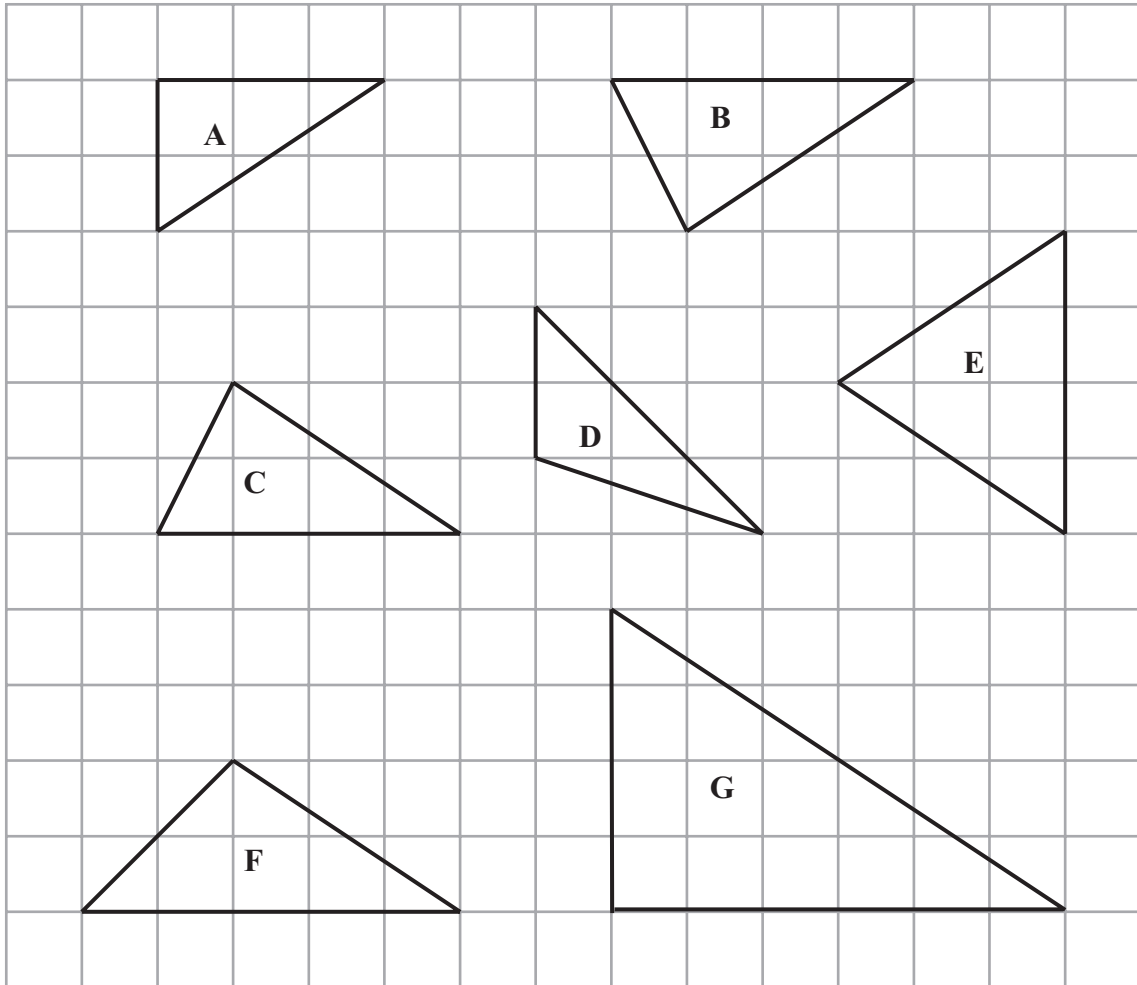
(d) Find the ratio of the total number of medals won by Germany to the total number of medals won by Austria. Give your answer in its simplest form.

(2)

.....

(Total for Question 10 = 6 marks)

11 The diagram shows seven triangles.



Two of these triangles are congruent.

(a) Write down the letters of these two triangles.

(1)

..... and

One of these triangles is an isosceles triangle.

(b) Write down the letter of this triangle.

(1)

.....

Triangle G is an enlargement of triangle A.

(c) Write down the scale factor of this enlargement.

(1)

.....

(Total for Question 11 = 3 marks)

12 Mr Shah is working out the cost of the electricity he used in April.

Electricity Meter Readings	
1 April	79721
30 April	80305

Mr Shah has to pay

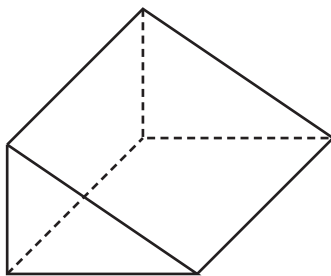
21.3p for each of the first 70 units used in April

and 10.2p for each of all the other units used in April.

Work out the total cost of the electricity he used in April.

.....
(Total for Question 12 = 4 marks)

13 Here is a diagram of a triangular prism.



(a) Write down the number of

(2)

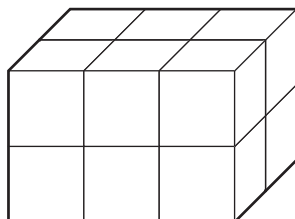
(i) faces,

.....

(ii) edges.

.....

Here is a solid cuboid made from centimetre cubes.



(b) Find the volume of the cuboid.

(2)

..... cm³

(Total for Question 13 = 4 marks)

***14** Mrs Long has to buy 270 chocolate biscuits.
She finds chocolate biscuits at 3 different shops.

Shop A	Shop B	Shop C
9 biscuits in a pack	18 biscuits in a pack	27 biscuits in a pack
£1.80 per pack	£2.50 per pack	£2.60 per pack
Buy one pack and get one extra pack free	Buy two packs and get one extra pack free	

Where will the biscuits cost least?
You must show your working.

.....
(Total for Question 14 = 4 marks)

15 Sally recorded the musical instrument played by each of 30 students in the school orchestra.

The table shows her results.

Musical instrument	Frequency	
Clarinet	5	
Guitar	12	
Flute	7	
Drums	6	

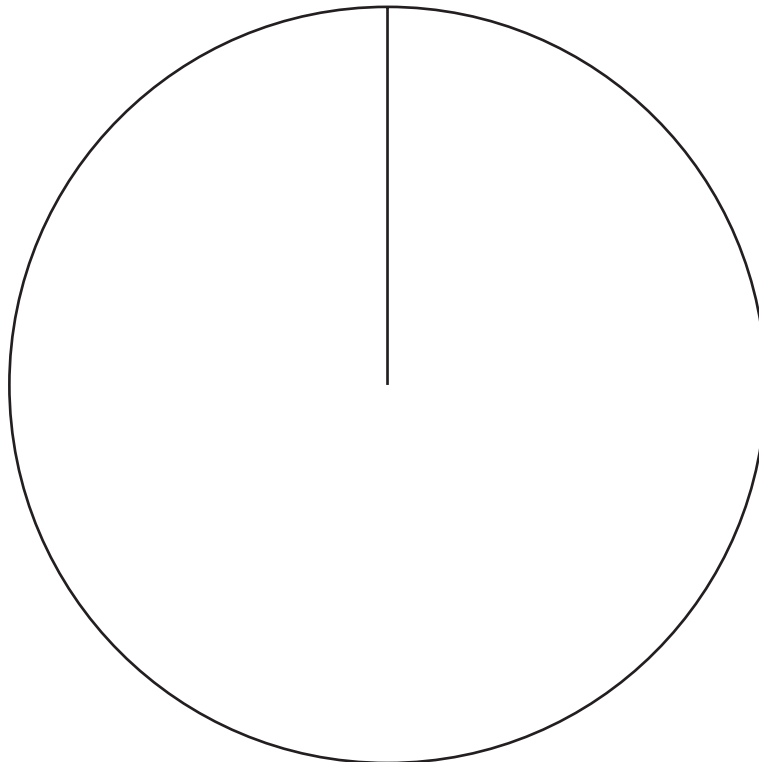
One of the students in the school orchestra is chosen at random.

(a) Find the probability that this student plays the flute.

(2)

(b) Draw an accurate pie chart to show the information shown in the table.

(4)



(Total for Question 15 = 6 marks)

16 This formula is used to work out the cost, £ C , of hiring a car for d days.

$$C = 35d + 40$$

Karl wants to hire a car for 4 days.

(a) How much will this cost Karl?

(2)

£

Barry hired a car at a cost of £355

(b) For how many days did Barry hire the car?

(2)

..... days

(Total for Question 16 = 4 marks)

17 Noah has some marbles.

He gives Keira 20% of his marbles.

He gives Ali 50% of his marbles.

Noah has 18 marbles left.

How many marbles did he have to start with?

.....
(Total for Question 17 = 4 marks)

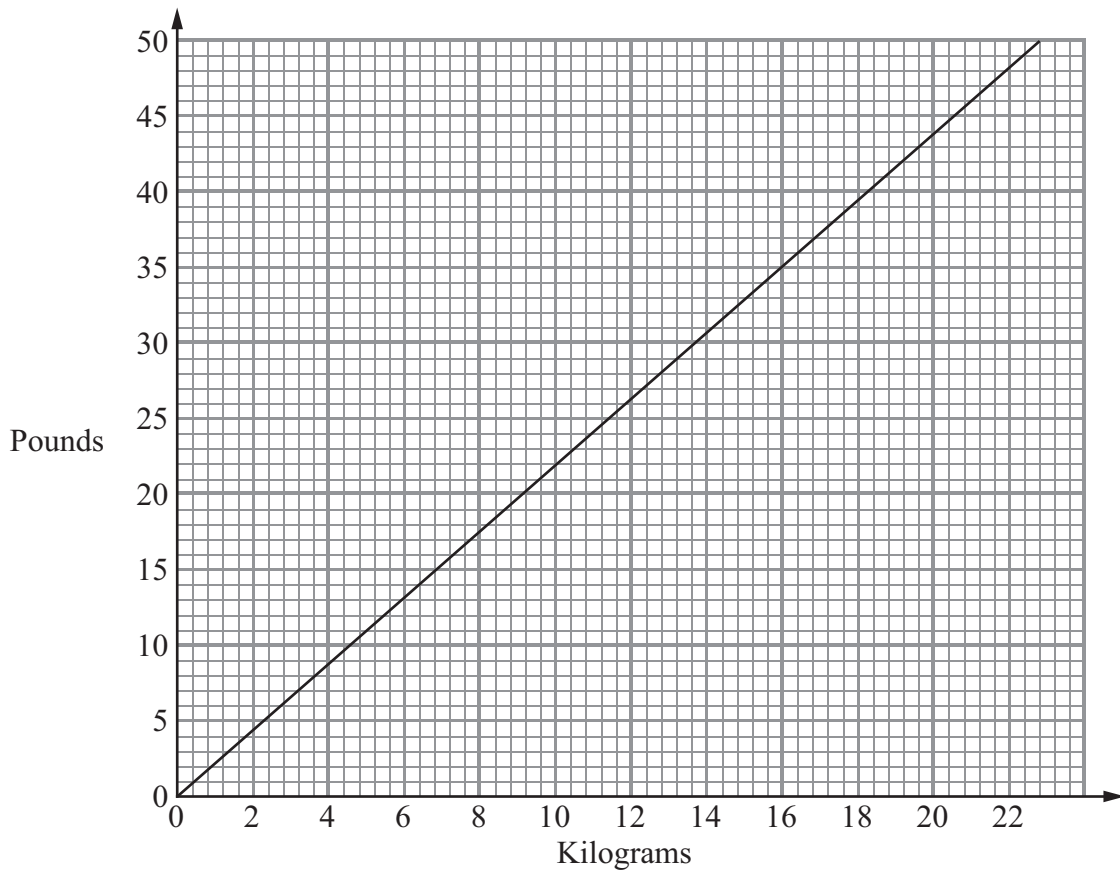
18 (a) Use your calculator to work out the value of $\frac{12.6^2 - 48.4}{0.23}$ (2)

Write down all the figures on your calculator display.
Give your answer as a decimal.

.....
(b) Give your answer to part (a) correct to 1 significant figure. (1)

.....
(Total for Question 18 = 3 marks)

19 You can use this conversion graph to change between kilograms and pounds.



(a) Use the graph to change 10 kilograms into pounds.

(1)

..... pounds

(b) Use the graph to change 35 pounds into kilograms.

(1)

..... kilograms

Lyra is going on holiday.
Her suitcase weighs 44 **pounds**.

The airline allows her to take 15 kg of luggage.

(c) How many pounds overweight is Lyra's suitcase?

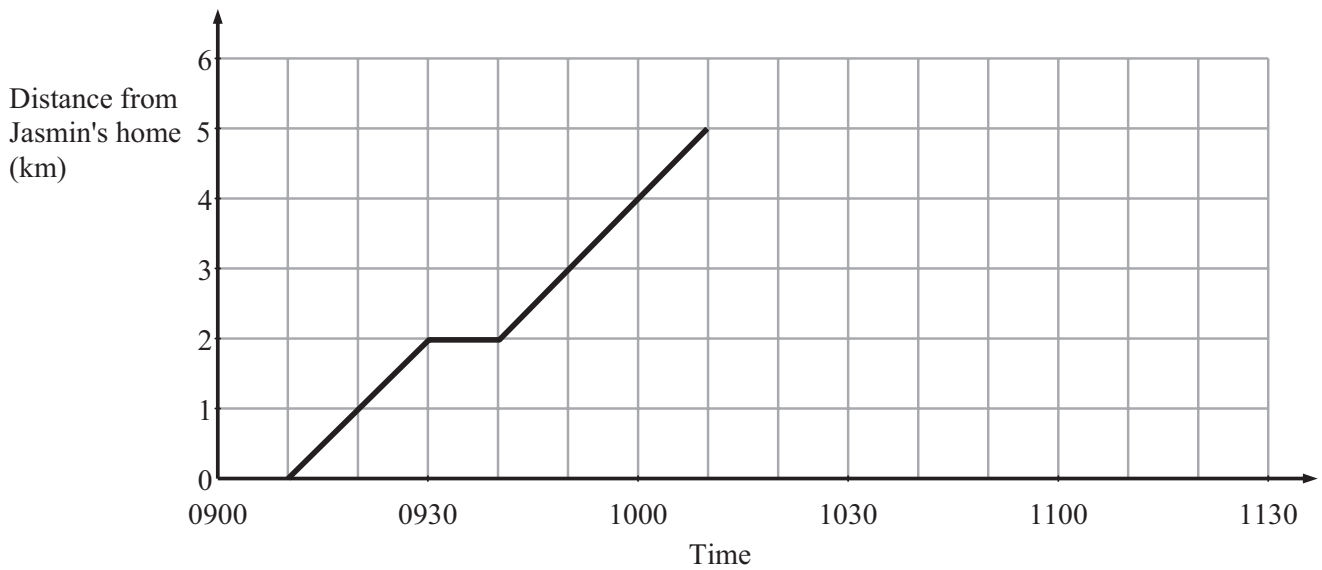
(3)

..... pounds

(Total for Question 19 = 5 marks)

20 Jasmin walked from her home to the park.

Here is a travel graph for Jasmin's journey from her home to the park.



(a) At what time did Jasmin leave home?

(1)

.....

On her way to the park Jasmin stopped to talk to a friend.

(b) For how long did she stop?

(1)

..... minutes

Jasmin stayed at the park for half an hour.

She then walked home at a speed of $7\frac{1}{2}$ km/h.

(c) Complete the travel graph.

(3)

(Total for Question 20 = 5 marks)

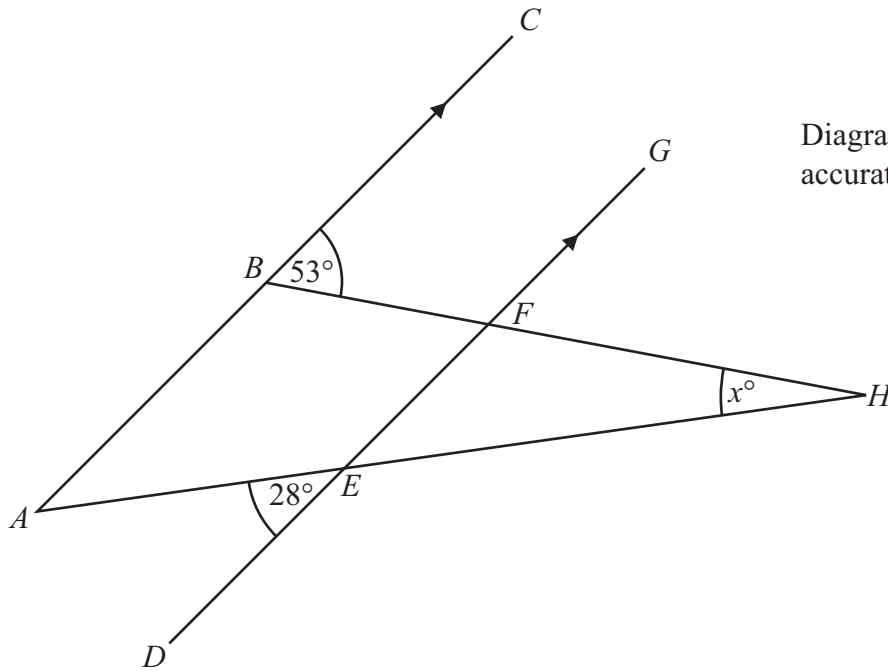


Diagram **NOT**
accurately drawn

ABC and $DEFG$ are parallel.
 AEH and BFH are straight lines.

Work out the size of the angle marked x° .

.....
(Total for Question 21 = 3 marks)

22 Tim is travelling home from holiday by plane.
He buys some food and drink on the plane.

Price List	
Cheese Roll	£3.50
Crisps	£1.20
Chocolate bar	£1.30
Coffee	£2.50
Tea	£2.00
Orange Juice	£2.20
Exchange rate £1 = 1.25 euros	

Tim buys two cheese rolls, a coffee and an orange juice.

He pays part of the cost with a 10 euro note.
He pays the rest of the cost in pounds (£).

How much does Tim pay in pounds?

£

(Total for Question 22 = 4 marks)

23 (a) Factorise $4x + 10$

(1)

.....

(b) Factorise fully $6y^2 + 12y$

(2)

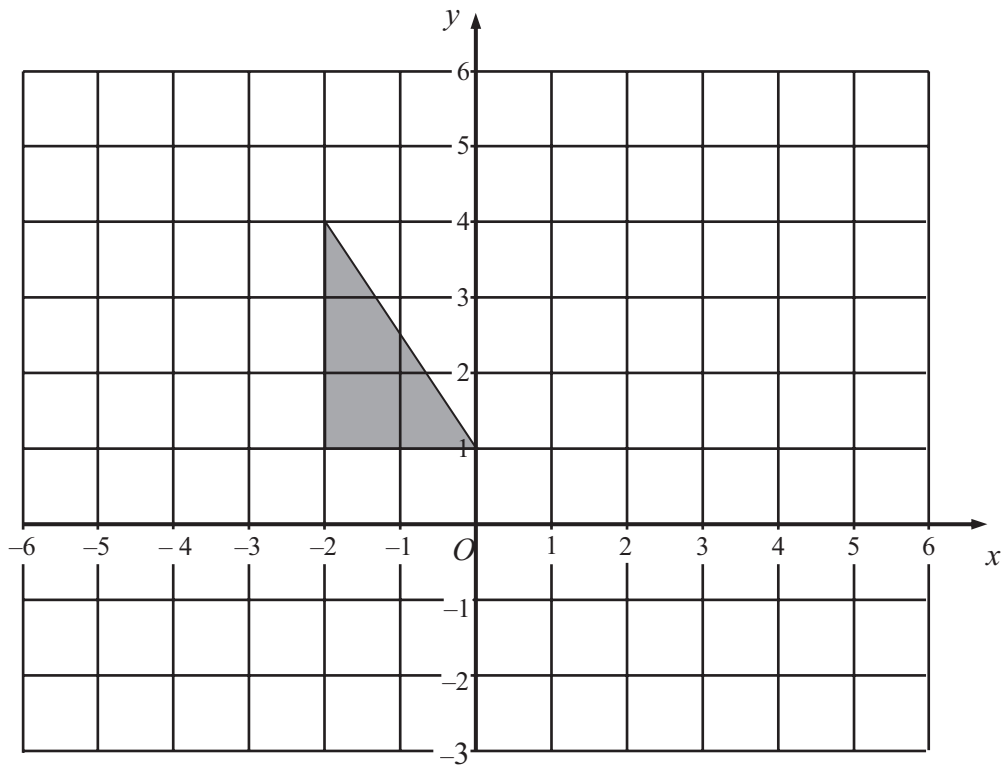
.....

(c) Solve the inequality $3(2x + 1) > 10$

(2)

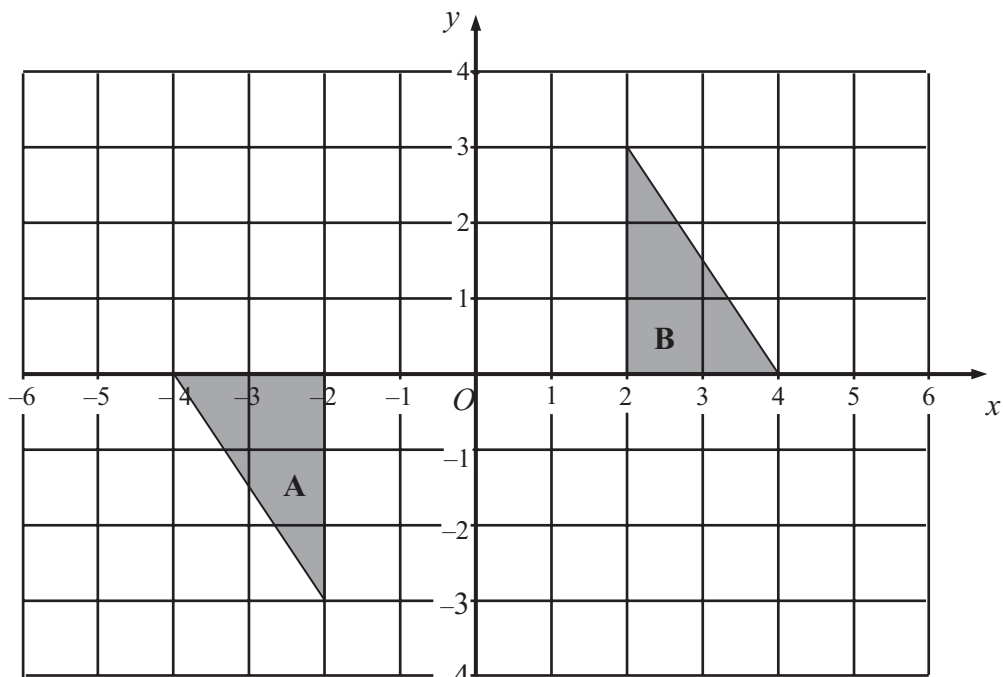
.....

(Total for Question 23 = 5 marks)



(a) Translate the triangle above by the vector $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ (1)

(b)



Describe fully the single transformation that maps triangle **A** onto triangle **B**. (3)

(Total for Question 24 = 4 marks)

*25 Jenny fills some empty flowerpots completely with compost.

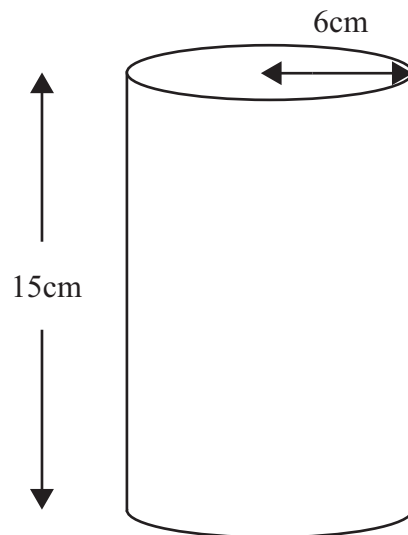


Diagram **NOT** accurately drawn

Each flowerpot is in the shape of a cylinder of height 15 cm and radius 6 cm. She has a 15 litre bag of compost.

She fills up each flowerpot completely.
How many flowerpots can she fill?
You must show your working.

.....
(Total for Question 25 = 4 marks)

26 A ladder is 6 m long.

The ladder is placed on horizontal ground, resting against a vertical wall.

The instructions for using the ladder say that the bottom of the ladder must **not** be closer than 1.5 m from the bottom of the wall.

How far up the wall can the ladder reach?

Give your answer correct to 1 decimal place.

..... m

(Total for Question 26 = 3 marks)

TOTAL FOR PAPER = 100 MARKS