1MA0/2F

Edexcel GCSE

Mathematics (Linear) – 1MA0

Practice Paper 2F (Calculator)
Set C

Foundation Tier

Time: 1 hour 45 minutes

Materials required for examination	Items included with question papers
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser. Tracing paper may be used.	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 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.
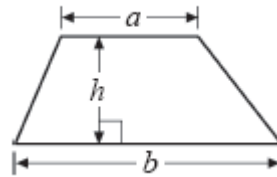Keep an eye on the time.
Try to answer every question.
Check your answers if you have time at the end.

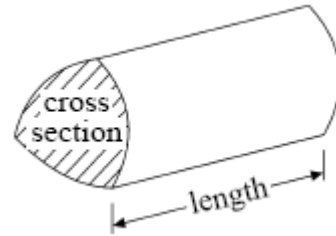**You must not write on this formulae page.**
Anything you write on this formulae page will gain NO credit.

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

Volume of prism = area of cross section × length
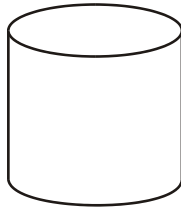
Answer ALL TWENTY ONE questions

Write your answers in the spaces provided.

You may use a calculator in this paper.
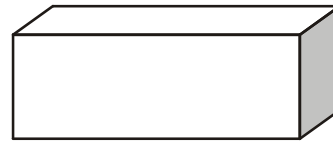
You must write down all the stages in your working.

1.   (a) Write down the mathematical name of each of these two 3-D shapes.

(i)   (ii)

....

....

(2)

The diagram shows a solid triangular prism.
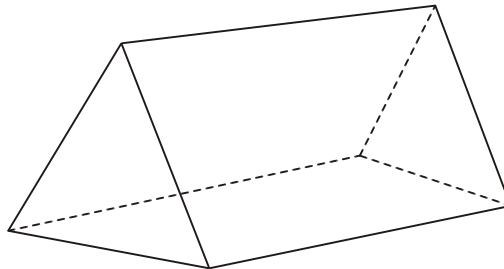
Diagram **NOT**
accurately drawn

(b) Write down

(i)   the number of faces

....

(ii)   the number of edges

....

(iii)   the number of vertices

....

(3)

(Total 5 marks)

2. The pictogram shows the number of lipsticks sold by a shop on each of Monday, Tuesday and Wednesday.

Monday	☺ ☺ ☺ ☺ ☺ ☺ ☺
Tuesday	☺ ☺ ☺ ☺ ☺
Wednesday	☺ ☺
Thursday	
Friday	

Key ☺ = 4 lipsticks

(a) (i) Write down the number of lipsticks sold on Wednesday.

……………………………

(ii) Write down the number of lipsticks sold on Monday.

……………………………

(2)

16 lipsticks were sold on Thursday.
10 lipsticks were sold on Friday

(b) Use this information to complete the pictogram.

(2)

(Total 4 marks)

3.
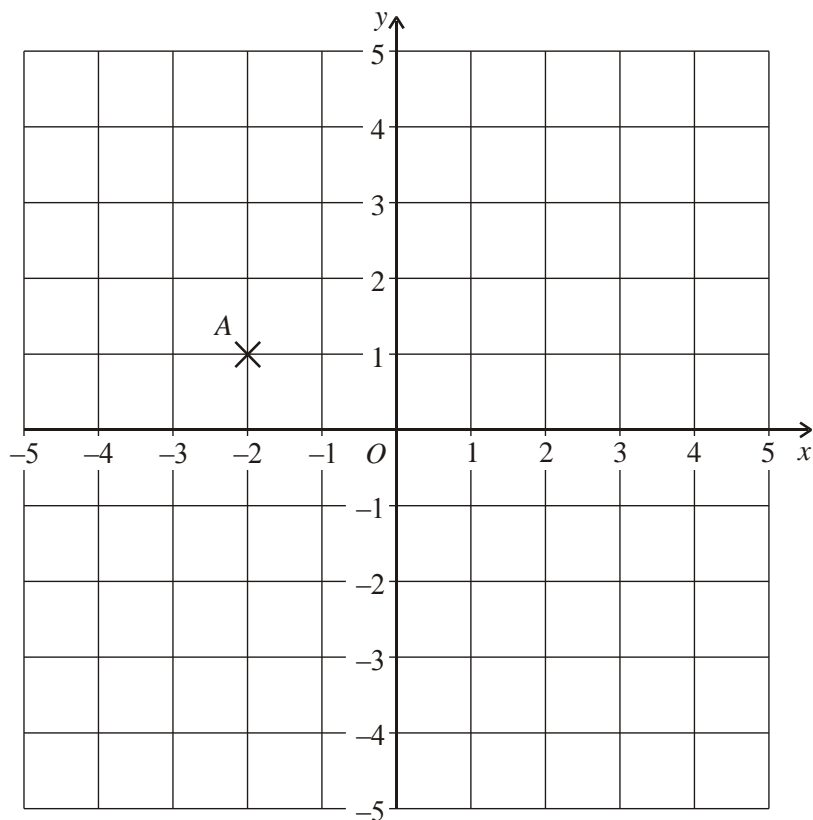
The point B has coordinates (2, 4).

(a) On the grid, plot and label the point *B*.

(1)

(b) Write down the coordinates of the point *A*.

(…………., …………)

(1)

(c) Write down the coordinates of the midpoint of the line joining point *A* to point *B*.

(…………., …………)

(2)

(Total 4 marks)

4. Imran has just four coins in his pocket.
He has two 20p coins, one 50p coin and one £2 coin.

Work out the total amount of money in Imran's pocket.

£ ……………………..

(1)

Gil has just five coins in her purse.
She has a total of £1.72

What coins could Gil have in her purse?

……………………………………………………………………..

(2)

Lynda has a presentation set of UK coins.
The set contains one each of every UK coin.

Work out the total value of the coins in the presentation set.

£ ……………………..

(2)

(Total 5 marks)

5. (a) Put these numbers in order of size.
In each case, start with the number with the least value.

   (i)   3   0   −2   1   −7

   ……………………………………………

   (ii)   0.07   7   0.7   0.17   1.7

   ……………………………………………..
   (2)

   (b) Work out the value of

   (i) 3.2^2

   …………………………..

   (ii) $\sqrt{13.8384}$

   ………………………….
   (2)
   (Total 4 marks)

6. (a) Write down a sensible metric unit for measuring

   (i) the distance from London to Paris,

   ....
   (ii) the weight of a pencil.

   ....
   (2)

   (b) (i) Change 5 centimetres to millimetres.

   .... mm
   (ii) Change 4000 grams to kilograms.
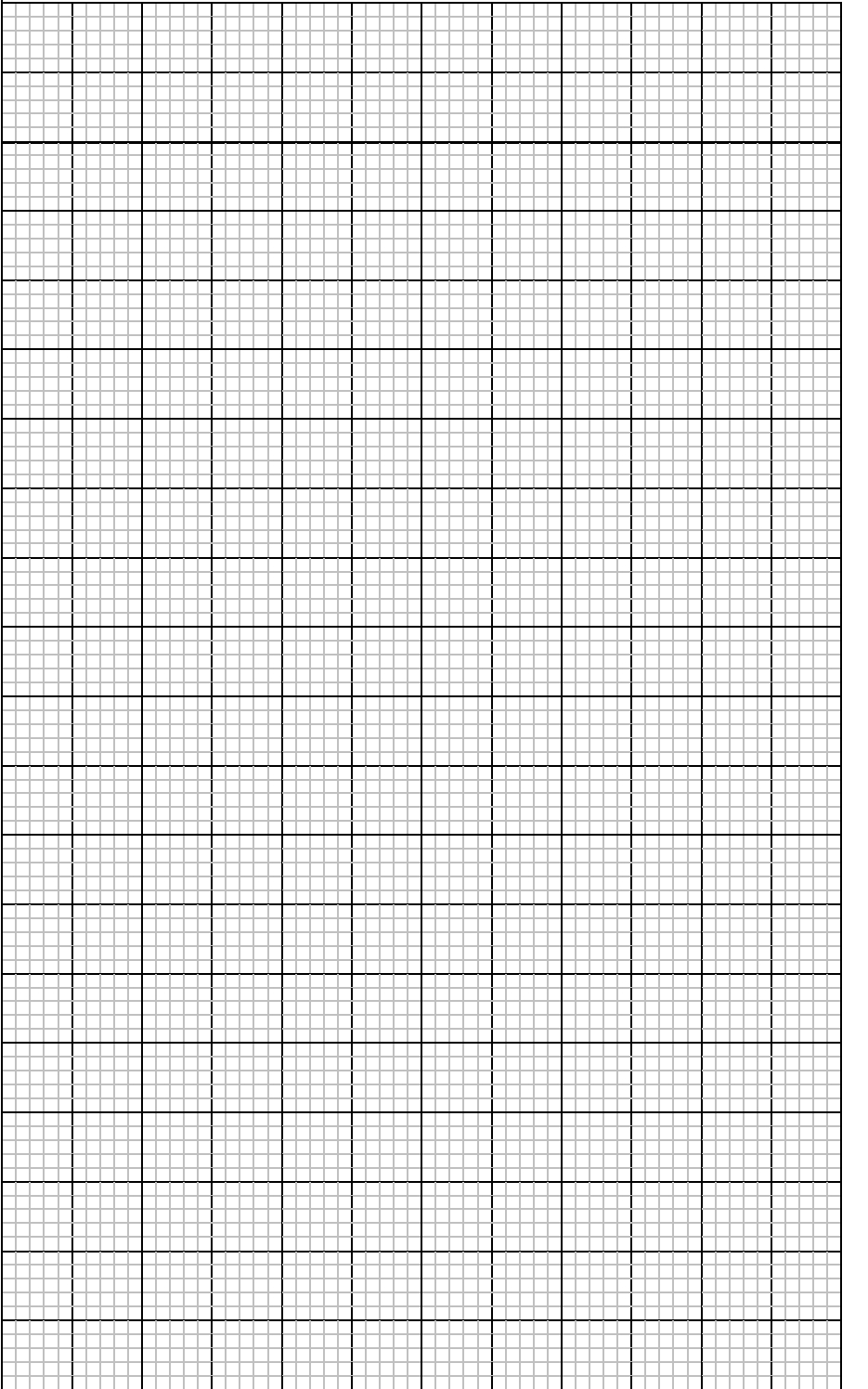
   .... kg
   (2)
   (Total 4 marks)

*7. The table shows information about some student's favourite football team.

	United	City	Rovers	Latics	Wanderers
Boys	12	5	3	7	6
Girls	4	9	5	3	10

On the grid, represent this information in a suitable diagram or chart.

(Total 4 marks)

8.   The length of a flight from Krakow to Liverpool is 2 hours 50 minutes.

The 17 15 (Krakow time) flight from Krakow to Liverpool is delayed by 75 minutes.
The time in Krakow is one hour ahead of the time in Liverpool.

Work out the time (Liverpool time), that the flight is due to arrive in Liverpool.

……………………………..

(3)

There are 228 passengers on the flight.
Two thirds of the passengers did not have a meal during the flight.

How many passengers had a meal during the flight?

…………………………....

(3)

(Total 6 marks)

9.
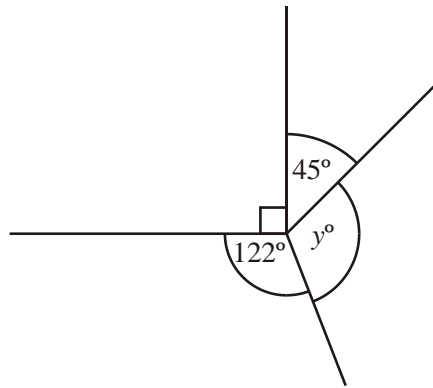
(a) (i) Work out the size of the angle marked $y°$.

………………………………°

(ii) Give a reason for your answer.

………………………………………………………………………………………………..

…………………………………………………………………………………………….……

(2)
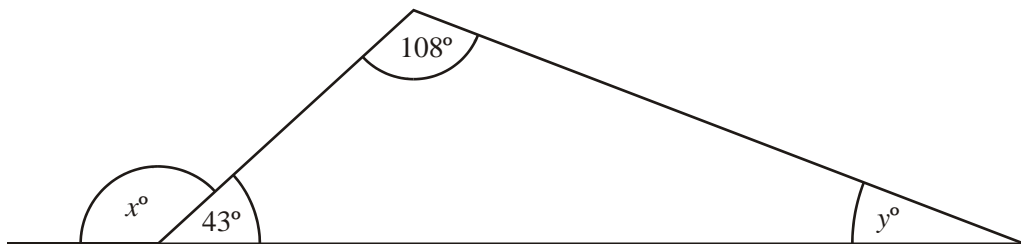
Diagram **NOT** accurately drawn

(b) (i) Work out the value of x.

$x =$ …………………..

(ii) Work out the value of y.

$y =$ ………………….

(3)

(Total 5 marks)

10. Sarah watched cars as they passed her house.
She counted the number of people in each of 20 cars.
These numbers are shown below.

2	3	1	2	2	3	4	5	4	1
1	2	2	3	2	4	5	4	2	4

(a) Complete the frequency table.

Number of people in a car	Tally	Frequency
1		
2		
3		
4		
5		

(2)

(b) Write down the mode of the number of people in a car.

....

(1)

(c) Work out the mean number of people in each car.

....

(3)

(Total 6 marks)

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11. (a) Simplify $4m + 7m$

....

(1)

(b) Simplify $2p^2 - p^2$

....

(1)

(c) Simplify $3x + 5y + 8x + 12y$

....

(2)

(d) Multiply out $5(w + 6)$

....

(1)

(Total 5 marks)

*12. Harry has a bowl of flakes for breakfast each morning.
In each bowl he has on average 35 g of flakes.

A box contains 500 g of flakes.

(a) Will one box last more than two weeks?
    You must show all of your working.

…………………………….
(3)

Harry is on a diet.
He is allowed to eat food containing no more than 2000 calories per day.

In one bowl of flakes, there are 130 calories.

(b) What percentage is one bowl of flakes of his daily allowance?

………………... calories
(2)

Each box of flakes is in the shape of a cuboid.
The dimensions of a box are 23 cm by 7 cm by 30 cm.

(c) Work out the volume of each box.

…………………………..
(3)

(Total 8 marks)

13. Amy has organised a Christmas party for some children.
Each child will get a party bag.

Each party bag contains;   1 balloon,
                            1 bar of chocolate,
                    and 1 toy.

Amy buys some packets balloons. Each packet contains 10 balloons.
She buys some boxes of chocolate bars. Each box contains 18 chocolate bars.
She also buys some packets of toys. Each packet contains 12 toys.

A packet of balloons costs £2.10
A box of bars of chocolate costs £4.50
A packet of toys costs £13.20

Work out the total cost of the contents of one party bag.

£ ………………………..

(3)

Amy makes up all of the party bags.
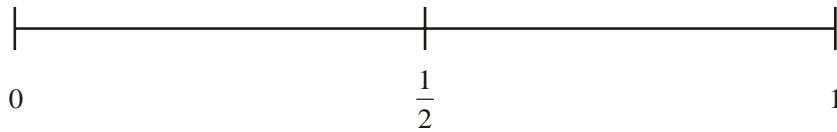There are no balloons, chocolate bars or toys left over.

Work out the least total number of party bags that Amy makes up.

…………………………..
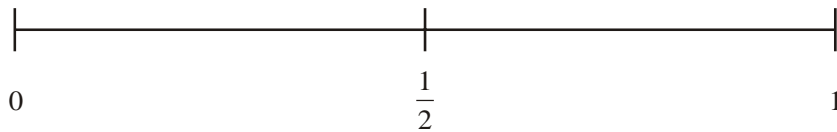
(3)

(Total 6 marks)

14. Tom throws two ordinary coins once.

(i) On the probability scale, mark with a cross (×) the probability that the coins will both show tails.

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├────────────────────┼────────────────────┤
0                    1/2                    1
```

(ii) On the probability scale, mark with a cross (×) the probability that the coins will show at least one head.

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├────────────────────┼────────────────────┤
0                    1/2                    1
```

(Total 3 marks)

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15. 70 students each chose a PE activity.
They chose one of swimming, athletics or tennis.

10 out of the 37 girls chose swimming.
17 boys chose athletics.
19 students chose swimming.
22 students chose tennis.

One student is selected at random.

Work out the probability that this student is a boy who chose tennis.

....
(Total 4 marks)
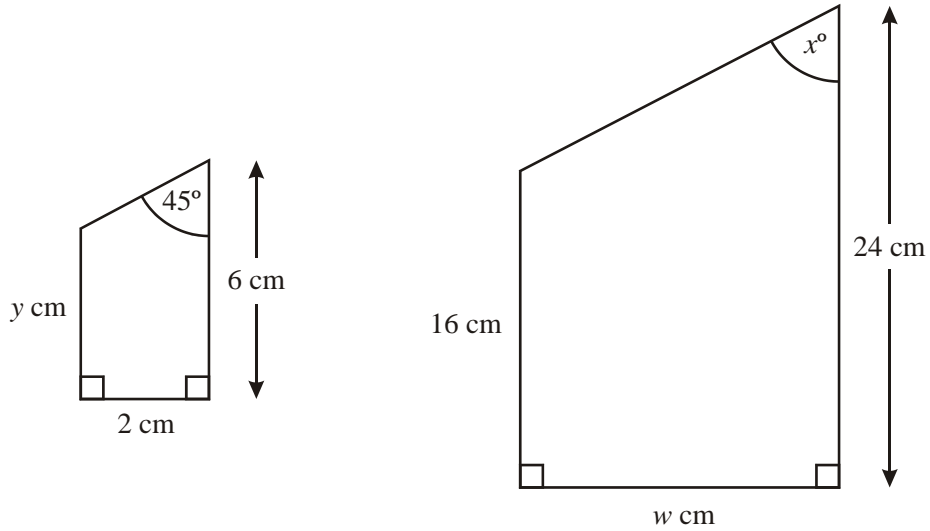
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16. Here are two trapeziums.

Diagram **NOT** accurately drawn

The larger trapezium is an enlargement of the smaller trapezium with a scale factor of 4

(a) Find the value of

   (i) w,

$$w = \text{.................}$$

   (ii) x,

$$x = \text{.................}$$

   (iii) y.

$$y = \text{.................}$$

(3)

(b) Work out the area of the larger trapezium.

.….................. cm^2

(2)

(Total 5 marks)

17. $P = 3a + 5b$

Work out the value of P when $a = 6$ and $b = 2$

$P =$ ....

(ii) Work out the value of P when $a = 5.8$ and $b = -3.4$

$P =$ ....

(Total 3 marks)

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*18. The diagram shows a wall in Vicky's living room.
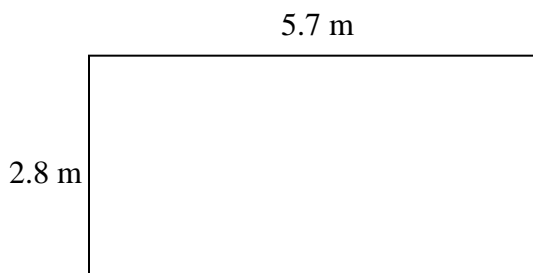
5.7 m

Diagram **NOT** accurately drawn

2.8 m

Vicky plans to wallpaper this wall.
She buys some rolls of wallpaper.

Each roll of wallpaper is 53 cm wide and 12 m long.
The cost of one roll of wallpaper is £12.45

Work out the cost of wallpapering the wall.

£ ……………………….

(Total 5 marks)

19. (a) Factorise $p^2 + p$

....
(1)

(b) Expand and simplify $4(x - 3) - 2(1 - x)$

....
(2)

(Total 3 marks)

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20. Angela earns £35 240 a year.

She has to pay income tax.

She is allowed to earn £6475 before paying tax.
She pays 20% tax on the rest.

Her employer deducts the income tax each month.

Work out how much income tax Angela gets deducted each month.

£ ....

(Total 4 marks)

*21. Jo wants buy a 50cc Retro Scooter.
She looks on the internet and sees these two advertisements.
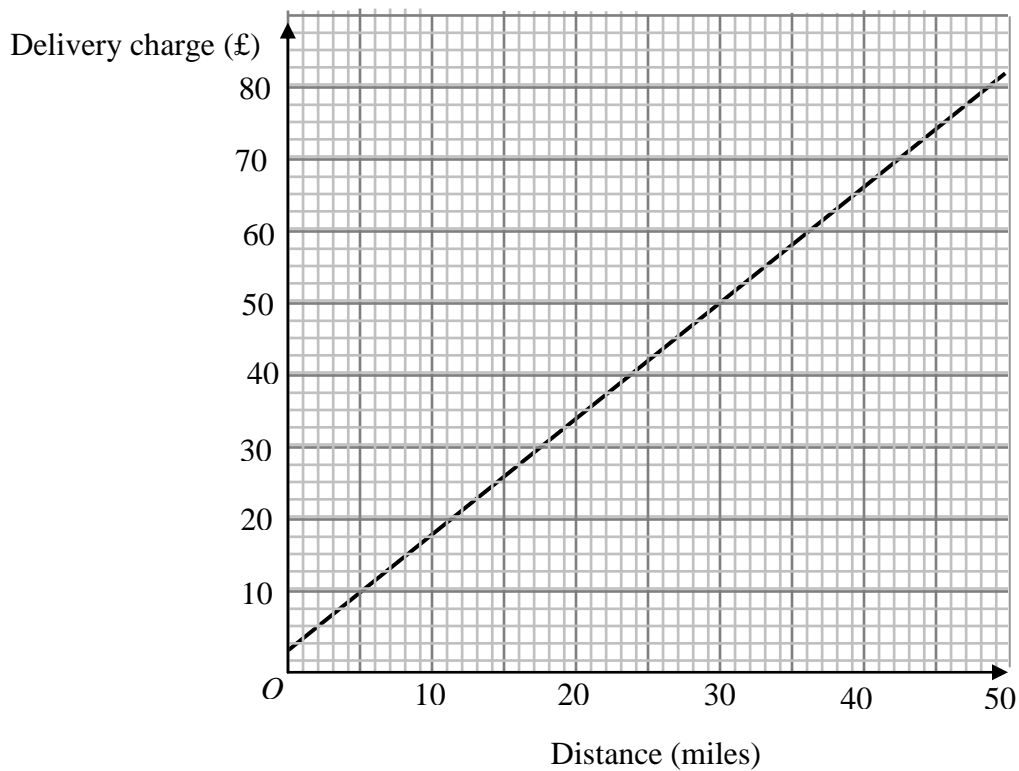
Atlas Motor Cycles
50cc Retro Scooter

£649
plus delivery

Simpson's Scooters
50cc Retro Scooter

£629 + FREE delivery
up to 10 miles (delivery charge of
£2.50 for each mile over 10 miles.

This graph is used to calculate Atlas Motor Cycles delivery charge for different distances.
The delivery charge is made up of a fixed charge and a cost per mile.

Delivery charge (£)

Distance (miles)

Jo lives 27 miles from Atlas Motor Cycles and 36 miles from Simpson's Scooters.

(a) Work out the most economical way for Jo to buy a 50cc Retro Scooter.

(5)

(b) Instead of giving a graph, what information could Atlas Motor Cycles have given to enable the delivery charge to be calculated?

(2)

(Total 7 marks)

TOTAL FOR PAPER: 100 MARKS

END