

31 Edexcel GCSE

Mathematics (Linear) – 1MA0

EXCHANGE RATES

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

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Answer all questions.

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Calculators may be used.

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Advice

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Check your answers if you have time at the end.

1. Jamie goes on holiday to Florida.
The exchange rate is £1 = 1.70 dollars.

He changes £900 into dollars.

- (a) How many dollars should he get?

..... dollars

(2)

After his holiday Jamie changes 160 dollars back into pounds.
The exchange rate is still £1 = 1.70 dollars.

- (b) How much money should he get?
Give your answer to the nearest penny.

£

(2)

(4 marks)

2. Tania went to Italy.
She changed £325 into euros (€).

The exchange rate was £1 = €1.68

- (a) Change £325 into euros (€).

€

(2)

When she came home she changed €117 into pounds.

The new exchange rate was £1 = €1.50

- (b) Change €117 into pounds.

£

(2)

(4 marks)

3.

Menu	
Hot dog	\$5.10
Chicken salad	\$4.50
Hamburger	\$3.80
Pizza	\$4.00

A British family are on holiday in San Francisco.

At a café they order 3 hot dogs and 1 chicken salad.

The exchange rate is £1 = \$1.44

Work out their **total** bill in pounds (£).

£

(4 marks)

4. A student bought a pair of sunglasses in the USA.

He paid \$35.50

In England, an identical pair of sunglasses costs £26.99

The exchange rate is £1 = \$1.42

In which country were the sunglasses cheaper, and by how much?

Show all your working.

.....

(4 marks)

5. Hugh went on holiday to Italy.

While on holiday, he went shopping.

He bought a belt and a hat.

The belt cost 25 euros.

The hat cost 14 euros.

The exchange rate was £1 = 1.56 euros.

Work out the total cost of the belt and the hat.

Give the total cost in pounds.

£

(4 marks)

6. Linda is going on holiday to the Czech Republic.

She needs to change some money into koruna.

She can only change her money into 100 koruna notes.

Linda only wants to change up to £200 into koruna.

She wants as many 100 koruna notes as possible.

The exchange rate is £1 = 25.82 koruna.

How many 100 koruna notes should she get?

.....

(6 marks)

7. 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?

£

(4 marks)

8. Esther went to France.

She changed £300 into Euros (€).
The exchange rate was £1 = €1.25

(a) How many Euros did she get?

€ (2)

Esther went shopping in France.
She bought

- 2 necklaces for €2.60 **each**
- 1 hat for €6.40
- 1 bag for €9.80

The exchange rate was £1 = €1.25

(b) Work out her **total** bill in pounds (£).

£ (4)
(6 marks)

9. Rosie and Jim are going on holiday to the USA.

Jim changes £350 into dollars (\$).

The exchange rate is £1 = \$1.34

(a) Work out how many dollars (\$) Jim gets.

\$
(2)

In the USA Rosie sees some jeans costing \$67

In London the same make of jeans costs £47.50

The exchange rate is still £1 = \$1.34



(b) Work out the difference between the cost of the jeans in the USA and in London.
Give your answer in pounds (£).

£
(3)

(5 marks)

10. The exchange rate in London is $\text{£}1 = \text{€}1.14$
The exchange rate in Paris is $\text{€}1 = \text{£}0.86$

Elaine wants to change some pounds into euros.

In which of these cities would Elaine get the most euros?
You must show all of your working.

.....
(4 marks)

11. Stephen imports cars from the USA. He sells them in the UK.

He has just bought a car in the USA costing \$24 000.
It cost him £900 to import the car to the UK.

The exchange rate is $\text{£}1 = \$1.45$

Stephen needs to make a profit of 20% on his total costs.

Work out the least amount that Stephen must sell the car for in the UK.
Give your answer in pounds.

£

(4 marks)

32 Edexcel GCSE

Mathematics (Linear) – 1MA0

ALGEBRA:

SUBSTITUTION

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

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1. $P = 3n$
 $n = 6$

(a) Work out the value of P .

$P = \dots\dots\dots$ (1)

$Q = 2c + d$
 $c = 3$
 $d = 2$

(b) Work out the value of Q .

$Q = \dots\dots\dots$ (2)

(Total 3 marks)

2. $p = 5$
 $r = 2$

(a) Work out the value of

$4p + 3r$

$\dots\dots\dots$ (2)

n is an even number.

(b) What type of number is $n + 1$?

$\dots\dots\dots$ (1)

(Total 3 marks)

3. $y = 5x - 3$

Find the value of y when $x = 9$

$y = \dots\dots\dots$

(2)

(Total 2 marks)

4. $P = 4k - 10$

$k = 7$

(a) Work out the value of k .

$\dots\dots\dots$

(2)

$y = 4n - 3d$

$n = 2$

$d = 5$

(b) Work out the value of y .

$\dots\dots\dots$

(2)

(Total 4 marks)

5. $v = u + 10t$

Work out the value of v when

$u = 10$ and $t = 7$

$v = \dots\dots\dots$

(Total 2 marks)

6.



Take **two 5 ml** spoons full
twice a day

You can work out the amount of medicine, c ml, to give to a child by using the formula

$$c = \frac{ma}{150}$$

m is the age of the child, in months.
 a is an adult dose, in ml.

A child is 30 months old.
An adult's dose is 40 ml.

Work out the amount of medicine you can give to the child.

..... ml

(Total 2 marks)

7. $V = 3b + 2b^2$

Find the value of V when $b = 4$

.....
(Total 2 marks)

8. (a) Work out the value of $3p + 4q$ when $p = 5$ and $q = -2$

.....

(2)

(b) Given that $y = 4x - 3$, work out the value of x when $y = 11$

$x =$

(3)

(Total 5 marks)

9. Work out the value of $5x + 1$ when $x = -3$

.....

(2)

(Total 2 marks)

10. (a) Work out the value of $3x - 4y$ when $x = 3$ and $y = 2$

.....

(2)

(b) Work out the value of $\frac{p(q-3)}{4}$ when $p = 2$ and $q = -7$

.....

(3)

(Total 5 marks)

11. $S = 2p + 3q$

$$p = -4$$

$$q = 5$$

(a) Work out the value of S .

$$S = \dots\dots\dots \quad (2)$$

$$T = 2m + 30$$

$$T = 40$$

(b) Work out the value of m .

$$m = \dots\dots\dots \quad (2)$$

(Total 4 marks)

12. $A = 4bc$

$$A = 100$$

$$b = 2$$

Work out the value of c .

$$c = \dots\dots\dots \quad (2)$$

(Total 2 marks)

13. (a) Work out the value of $2a + ay$ when $a = 5$ and $y = -3$

.....

(2)

(b) Work out the value of $5t^2 - 7$ when $t = 4$

.....

(3)

(Total 5 marks)

14. $A = \frac{h(x+10)}{2}$

$A = 27$

$h = 4$

Work out the value of x

$x = \dots\dots\dots$

(Total 3 marks)

15. $h = 5t^2 + 2$

(i) Work out the value of h when $t = -2$

.....
(3)

(ii) Work out a value of t when $h = 47$

.....
(3)
(Total 5 marks)

16. $V = 3b + 2b^2$

Find the value of V when $b = -4$

(3)

.....
(Total 3 marks)

33 Edexcel GCSE Mathematics (Linear) – 1MA0

ANGLES: PARALLEL LINES

Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
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Items included with question papers

Nil



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1.

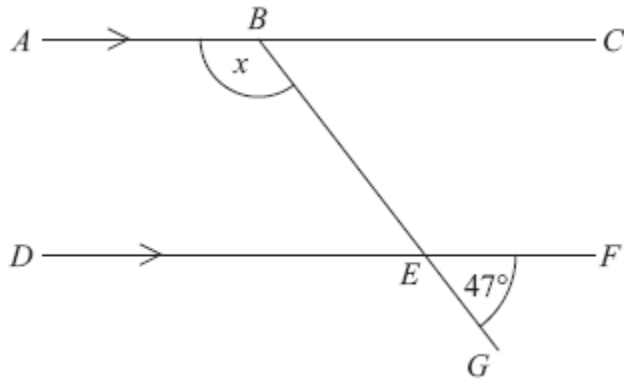


Diagram **NOT**
accurately drawn

ABC and *DEF* are parallel lines.

BEG is a straight line.

Angle *GEF* = 47° .

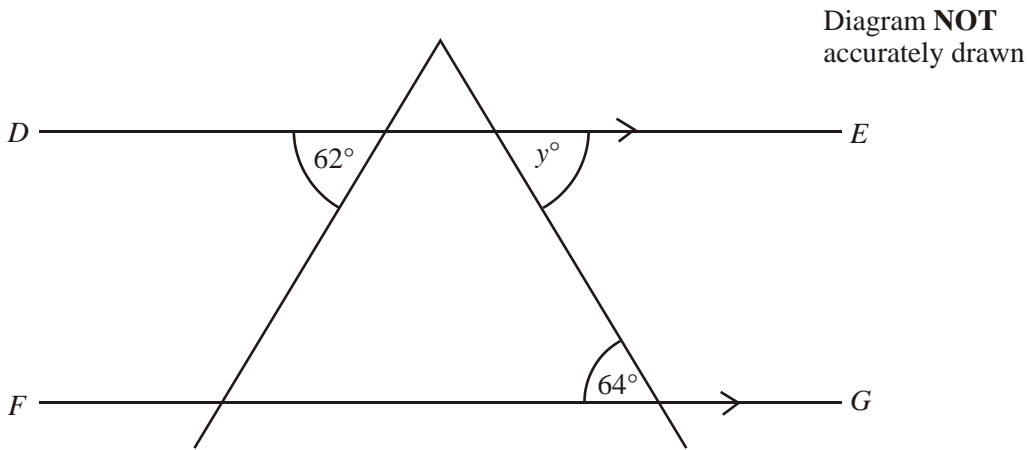
Work out the size of the angle marked *x*.

Give reasons for your answer.

.....^o

(3 marks)

2.



DE is parallel to *FG*.

- (i) Find the size of the angle marked y° .

.....^o

(1)

- (ii) Give a reason for your answer.

.....
.....

(2)

(3 marks)

3.

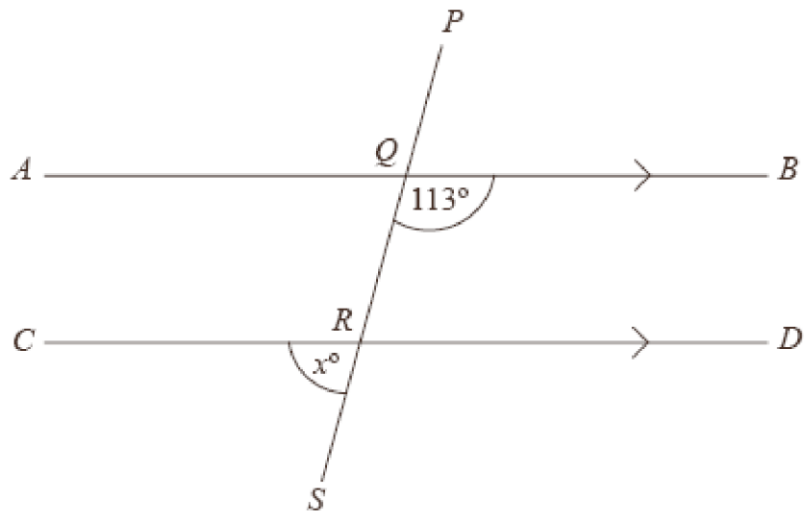


Diagram **NOT** accurately drawn

AQB , CRD and $PQRS$ are straight lines.

AB is parallel to CD .

Angle $BQR = 113^\circ$.

(a) Work out the value of x .

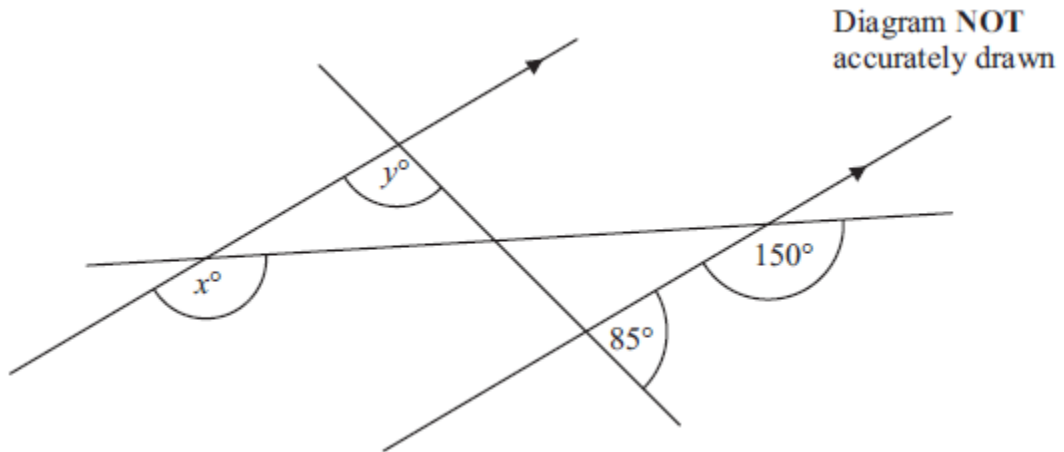
$x = \dots\dots\dots$

(b) Give reasons for your answer.

.....
.....
.....

(4 marks)

4.



(a) i) Find the value of x .

.....
(1)

ii) Give reasons for your answer.

.....
(1)

(b) i) Find the value of y .

.....
(2)

ii) Give reasons for your answer.

.....
(2)

(6 marks)

*5.

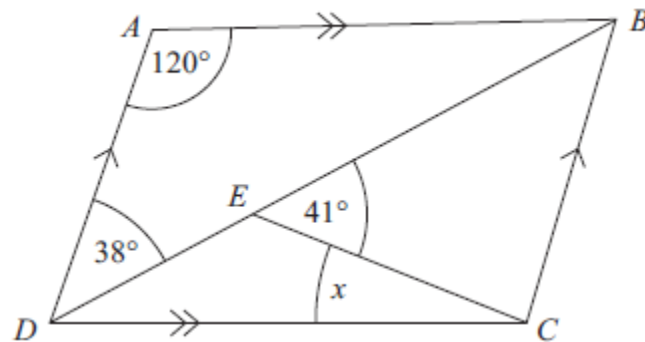


Diagram **NOT**
accurately drawn

$ABCD$ is a parallelogram.

Angle $ADB = 38^\circ$.

Angle $BEC = 41^\circ$.

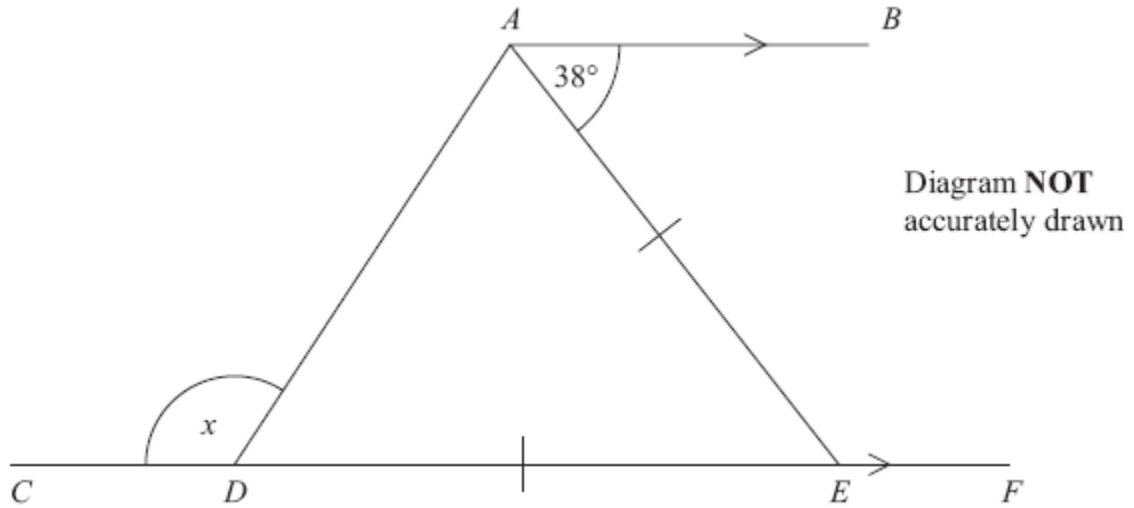
Angle $DAB = 120^\circ$.

Calculate the size of angle x .

You must give reasons for your answer.

(4 marks)

*6.



$CDEF$ is a straight line.
 AB is parallel to CF .
 $DE = AE$.

Work out the size of the angle marked x .
You must give reasons for your answer.

(4 marks)

*7.

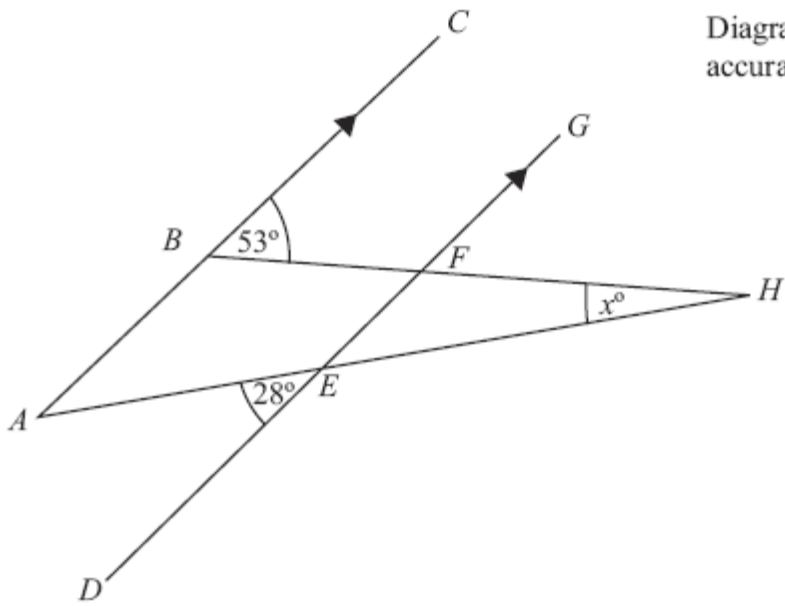


Diagram **NOT**
accurately drawn

ABC and *DEFG* are parallel.
AEH and *BFH* are straight lines.
Work out the size of the angle marked x° .

.....^o
(3 marks)

34 Edexcel GCSE

Mathematics (Linear) – 1MA0

ANGLES

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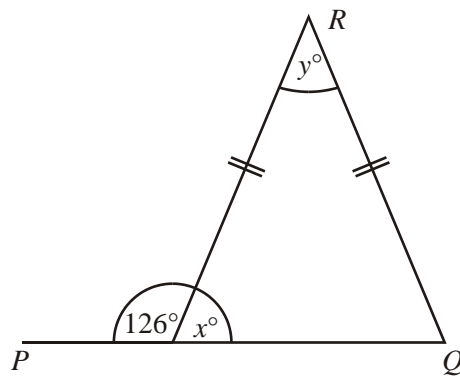


Diagram **NOT** accurately drawn

PQ is a straight line.

(a) Work out the size of the angle marked x° .

.....^o

(1)

(b) (i) Work out the size of the angle marked y° .

.....^o

(ii) Give reasons for your answer.

.....
.....

(3)

(4 marks)

2.

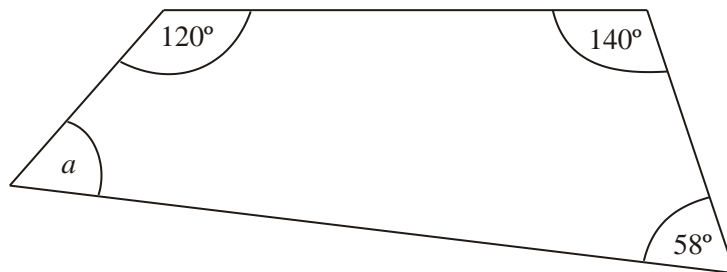


Diagram **NOT** accurately drawn

Work out the size of the angle a .

.....^o

(2 marks)

3.

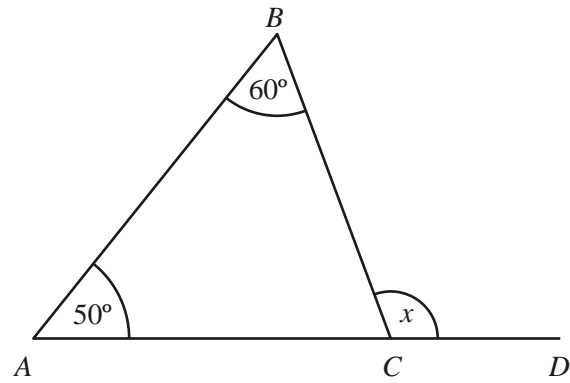


Diagram **NOT** accurately drawn

In the diagram, ABC is a triangle.

ACD is a straight line.

Angle $CAB = 50^\circ$.

Angle $ABC = 60^\circ$.

Work out the size of the angle marked x .

.....^o

(2 marks)

4.

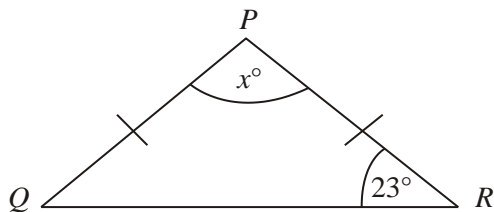


Diagram **NOT** accurately drawn

PQR is an isosceles triangle.

$PQ = PR$.

Angle $R = 23^\circ$.

Work out the value of x .

$x =$

(2 marks)

5.

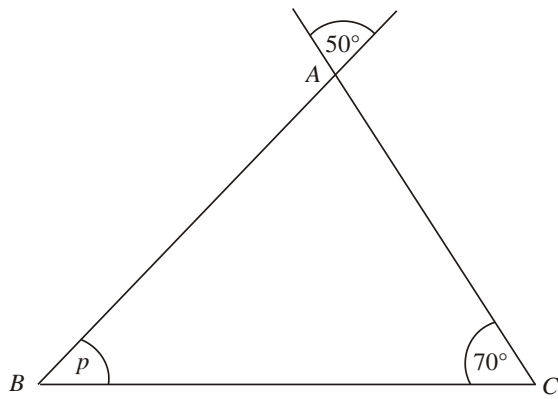


Diagram **NOT** accurately drawn

ABC is a triangle.

Work out the size of the angle marked *p*.

$p = \dots\dots\dots^\circ$

(2 marks)

6.

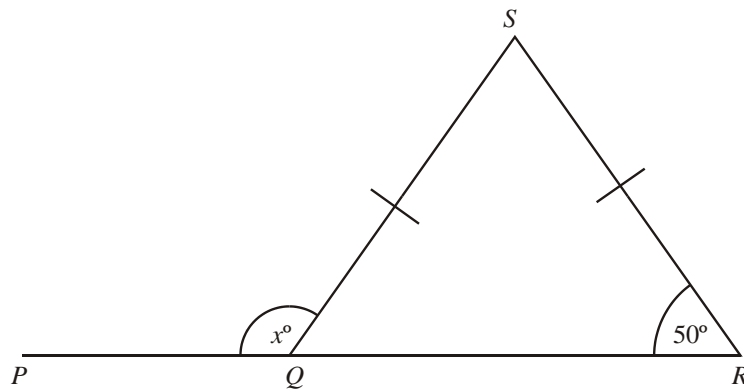


Diagram **NOT** accurately drawn

PQR is a straight line.
SQ = SR.

(i) Work out the size of the angle marked x°

$\dots\dots\dots^\circ$

(ii) Give reasons for your answer.

.....
.....

(3 marks)

7.

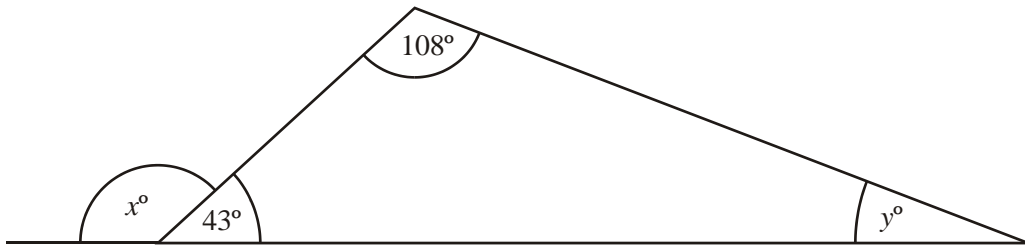


Diagram **NOT** accurately drawn

(a) Work out the value of x .

$$x = \dots\dots\dots$$

(1)

(b) Work out the value of y .

$$y = \dots\dots\dots$$

(2)

(3 marks)

8.

A diagram showing a triangle ABC with $AC = BC$. Point D is on the extension of BC such that B, C, D are collinear. Angle $ACD = 62^\circ$ and angle $ABC = x^\circ$.

Diagram **NOT** accurately drawn

Triangle ABC is isosceles, with $AC = BC$.

Angle $ACD = 62^\circ$.

BCD is a straight line.

Work out the size of angle x .

$$x = \dots\dots\dots^\circ$$

(2 marks)

281

9.

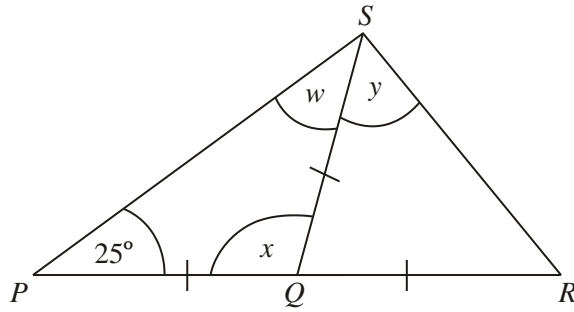


Diagram **NOT** accurately drawn

PQR is a straight line.

$PQ = QS = QR$.

Angle $SPQ = 25^\circ$.

(a) (i) Write down the size of angle w .

.....^o

(ii) Work out the size of angle x .

.....^o

(2)

(b) Work out the size of angle y .

.....^o

(2)

(4 marks)

10.

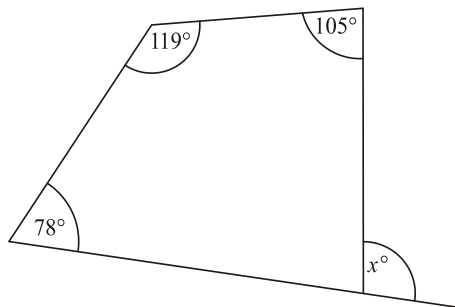


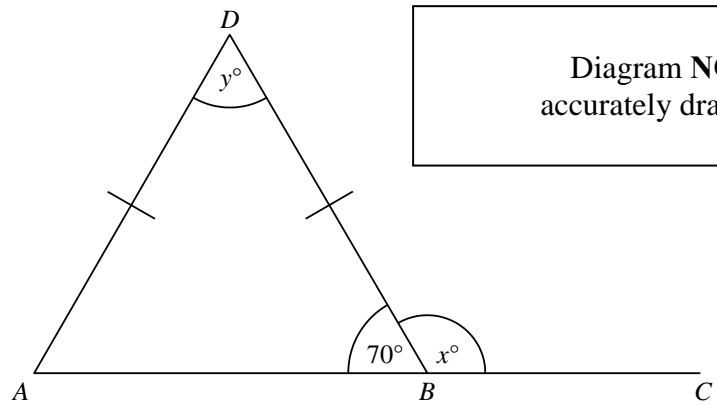
Diagram **NOT** accurately drawn

Work out the value of x .

$x = \dots\dots\dots$

(3 marks)

11.



ABD is a triangle. ABC is a straight line.
 Angle $ABD = 70^\circ$.
 $AD = BD$.

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

$x = \dots\dots\dots$

(ii) Give a reason for your answer.

.....

(2)

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

$y = \dots\dots\dots$

(ii) Give a reason for your answer.

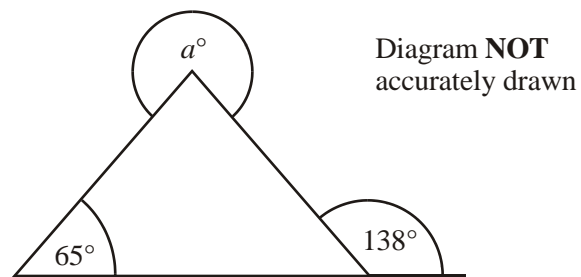
.....

.....

(3)

(5 marks)

12.



Work out the value of a .

$a = \dots\dots\dots$

(3 marks)

13.

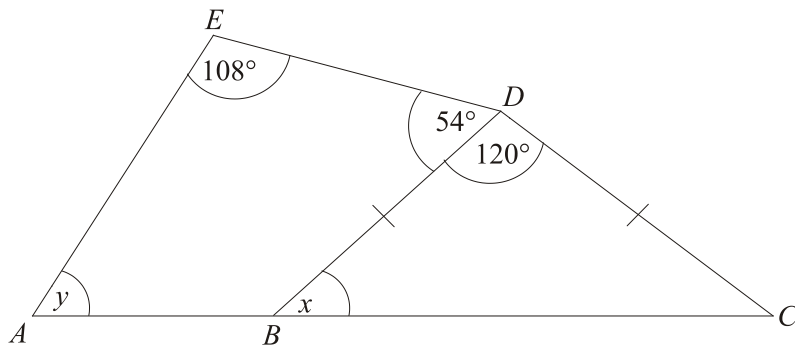


Diagram **NOT** accurately drawn

In the diagram, ABC is a straight line and $BD = CD$.

(a) Work out the size of angle x .

.....°

(2)

(b) Work out the size of angle y .

.....°

(3)

(5 marks)

35 Edexcel GCSE

Mathematics (Linear) – 1MA0

ANGLES: POLYGONS

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1. Each exterior angle of a regular polygon is 30° .

Work out the number of sides of the polygon.

.....

(2 marks)

2.

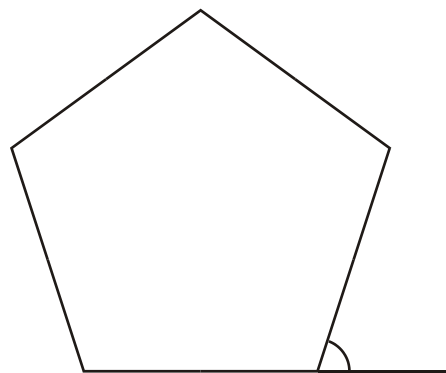


Diagram **NOT**
accurately drawn

Work out the size of an exterior angle of a regular pentagon.

.....^o

(2 marks)

3.

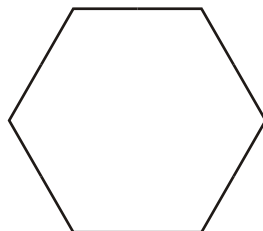


Diagram **NOT**
accurately drawn

Calculate the size of the exterior angle of a regular hexagon.

.....^o

(2 marks)

4. The size of each exterior angle of a regular polygon is 40° .

Work out the number of sides of the regular polygon.

.....

(2 marks)

5. The size of each interior angle of a regular polygon is 156° .

Work out the number of sides of the polygon.

.....

(3 marks)

6. Here is a regular polygon with 9 sides.

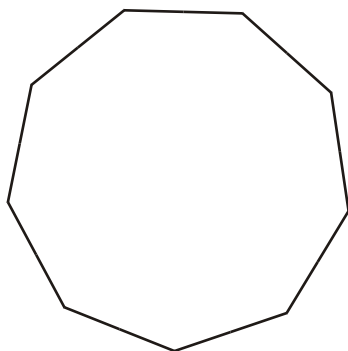


Diagram **NOT** accurately drawn

Work out the size of an exterior angle.

.....^o

(2 marks)

7.

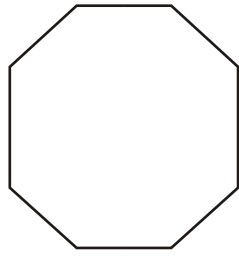


Diagram **NOT** accurately drawn

(a) Work out the size of each interior angle of a regular octagon.

.....

(3)

The size of each exterior angle of a regular polygon is 30°

(b) Work out the number of sides of the polygon.

.....

(2)

(5 marks)

8.

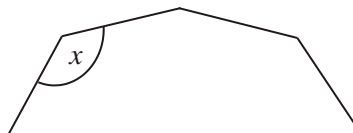


Diagram **NOT** accurately drawn

The diagram shows part of a **regular** 10-sided polygon.

Work out the size of the angle marked x .

.....^o

(3 marks)

9.

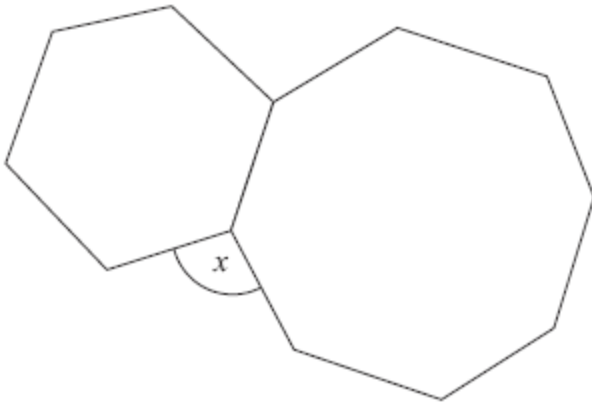


Diagram **NOT**
accurately drawn

The diagram shows a regular hexagon and a regular octagon.

Calculate the size of the angle marked x .
You must show all your working.

.....^o

(4 marks)

10.

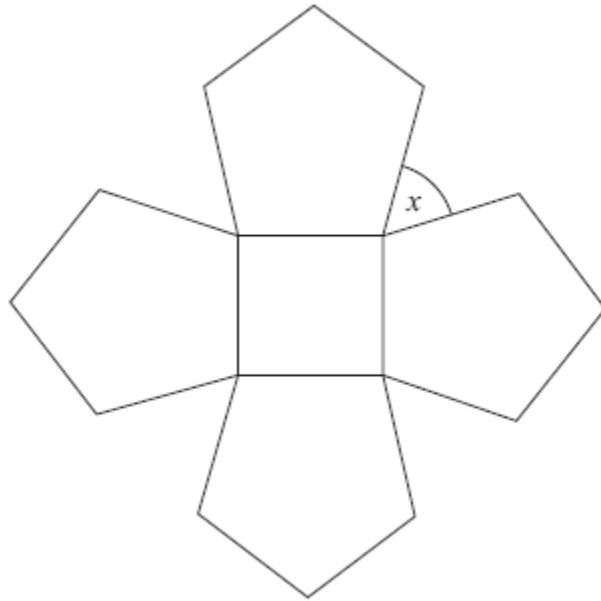


Diagram **NOT**
accurately drawn

The diagram shows a square and 4 regular pentagons.

Work out the size of the angle marked x .

..... °

(4 marks)

11.

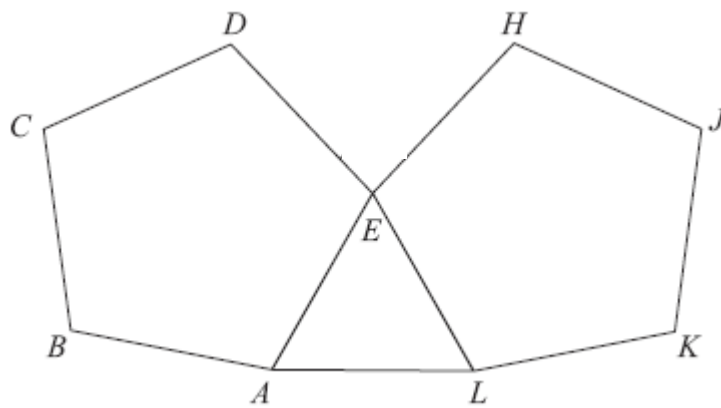


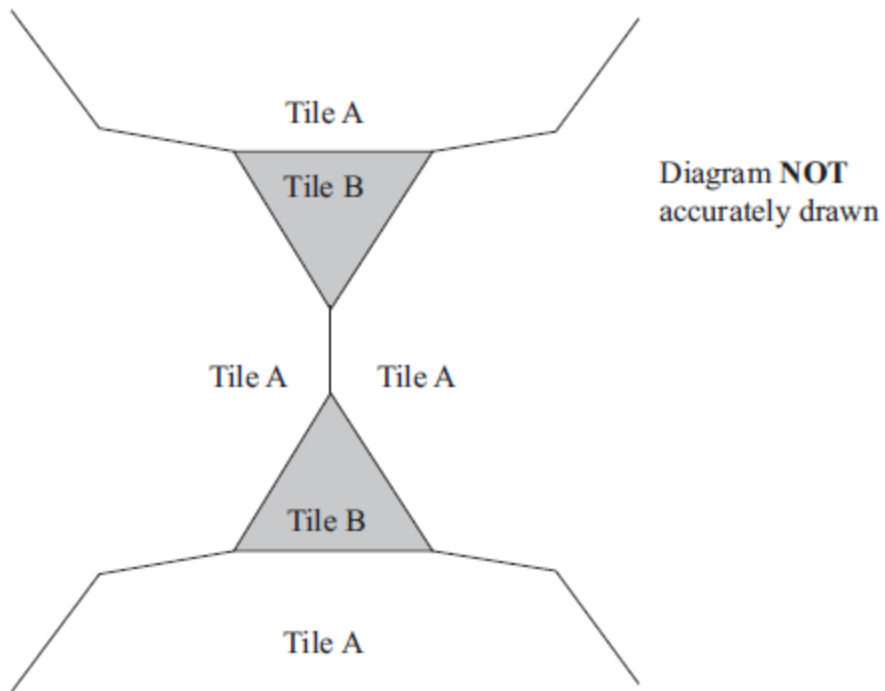
Diagram **NOT**
accurately drawn

$ABCDE$ and $EHJKL$ are regular pentagons.
 AEL is an equilateral triangle.

Work out the size of angle DEH .

.....^o
(4 marks)

12. The diagram shows part of a pattern made from tiles.



The pattern is made from two types of tiles, tile A and tile B.

Both tile A and tile B are regular polygons.

Work out the number of sides tile A has.

.....
(4 marks)

36 Edexcel GCSE

Mathematics (Linear) – 1MA0

AREA & CIRCUMFERENCE OF CIRCLES

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.

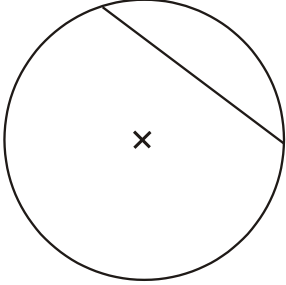
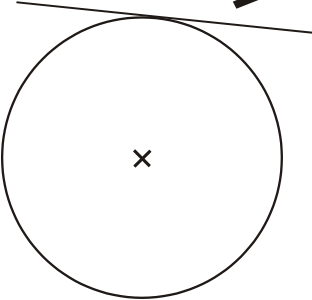
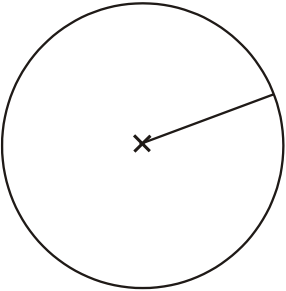
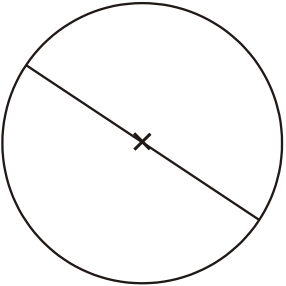
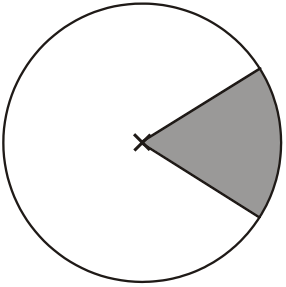
Keep an eye on the time.

Try to answer every question.

Check your answers if you have time at the end.

1. Here are 5 diagrams and 5 labels.
 In each diagram the centre of the circle is marked with a cross (×).

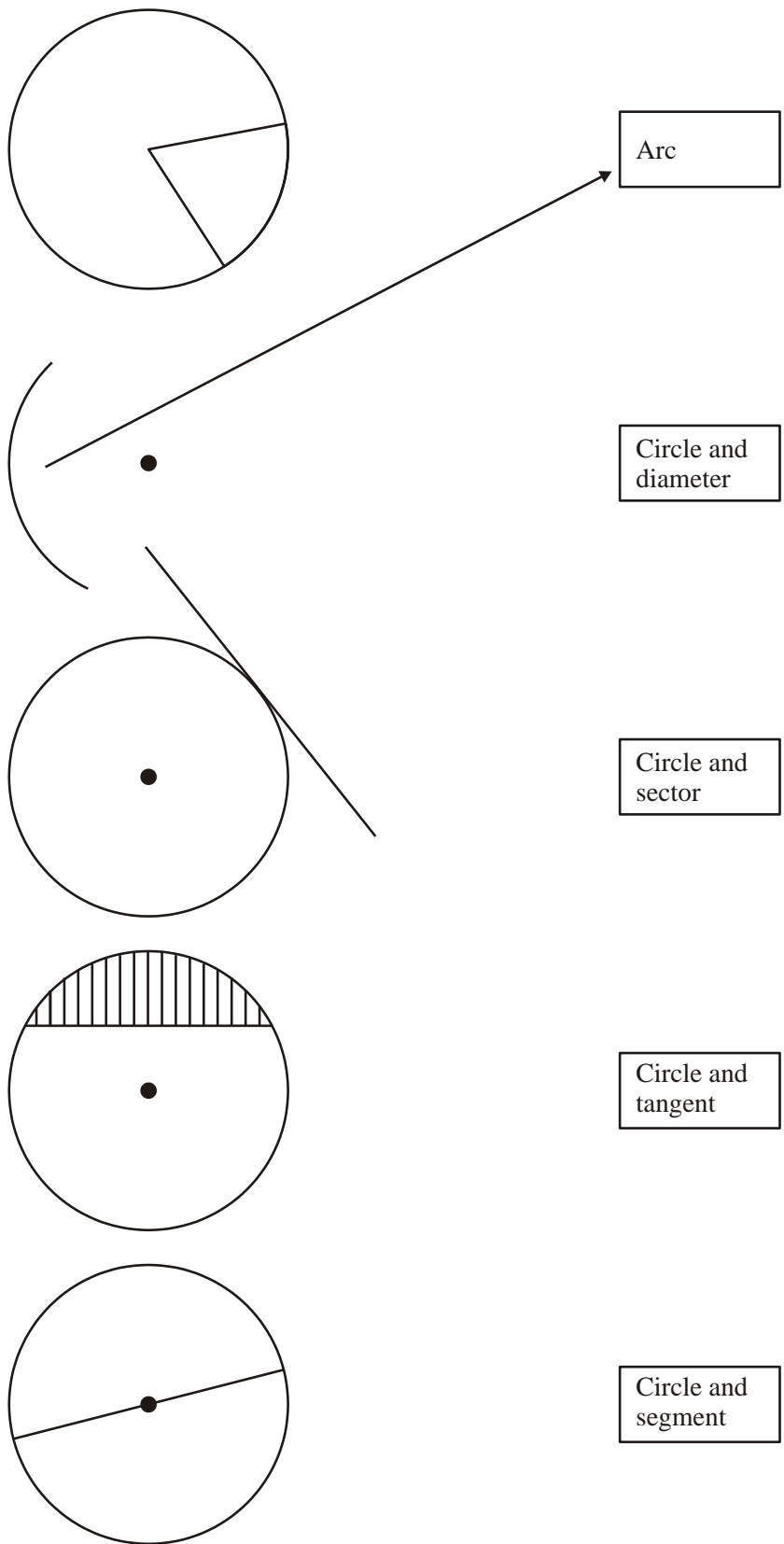
Match each diagram to its label.
 One has been done for you.

Diagram	Label
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Circle and tangent </div>
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Circle and radius </div>
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Circle and chord </div>
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Circle and sector </div>
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Circle and diameter </div>

(3 marks)

2. Here are some diagrams relating to a circle.

Draw an arrow from each of the diagrams to its mathematical name.
The arrow showing an arc is drawn for you.



(3 marks)

3. The radius of a circle is 3.60 m.

Work out the area of the circle.

Give your answer correct to 3 significant figures.

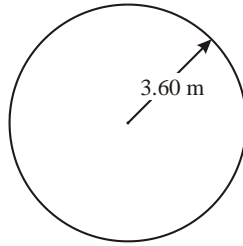


Diagram NOT
accurately drawn

.....

(3 marks)

4. The diameter of a wheel on Harry's bicycle is 0.65 m.

Calculate the circumference of the wheel.

Give your answer correct to 2 decimal places.

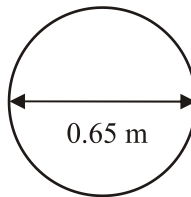


Diagram NOT
accurately drawn

.....

(3 marks)

- 5.

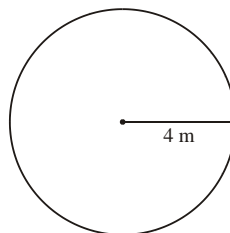


Diagram NOT
accurately drawn

The radius of a circle is 4 m.

Work out the area of the circle.

Give your answer correct to 3 significant figures.

.....

(3 marks)

6. A circle has a radius of 6.1 cm.
Work out the circumference of the circle.

Give your answer correct to 3 significant figures.

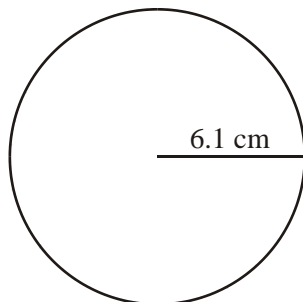


Diagram NOT
accurately drawn

.....

(3 marks)

7. The radius of a circle is 6.4 cm.

Work out the circumference of this circle.

Give your answer correct to 1 decimal place.

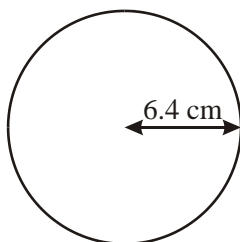


Diagram NOT
accurately drawn

.....

(3 marks)

- 8.

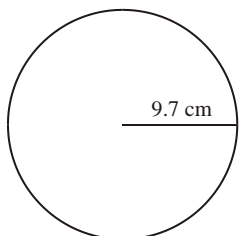


Diagram NOT
accurately drawn

The radius of the circle is 9.7 cm.
Work out the area of the circle.
Give your answer to 3 significant figures.

.....

(3 marks)

9. The diameter of a circle is 12 centimetres.

- (a) Work out the circumference of the circle.
Give your answer, in centimetres, correct to 1 decimal place.

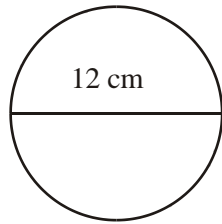


Diagram **NOT**
drawn accurately

.....

(3 marks)

10. Here is a tile in the shape of a semicircle.

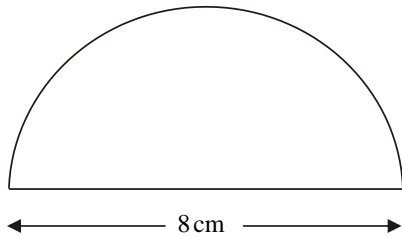


Diagram **NOT**
accurately drawn

The diameter of the semicircle is 8 cm.

Work out the perimeter of the tile.
Give your answer correct to 2 decimal places.

..... cm

(3 marks)

11.

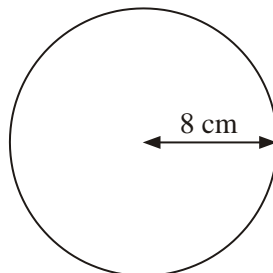


Diagram **NOT**
accurately drawn

The radius of this circle is 8 cm.

Work out the circumference of the circle.
Give your answer correct to 2 decimal places.

..... cm

(3 marks)

12.

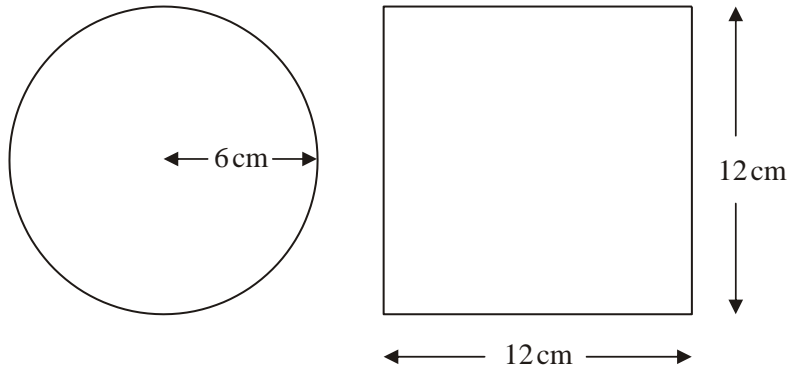


Diagram **NOT** accurately drawn

A circle has a radius of 6 cm.

A square has a side of length 12 cm.

Work out the difference between the area of the circle and the area of the square.
Give your answer correct to one decimal place.

.....

(4 marks)

13. The top of a table is a circle.
The radius of the top of the table is 50 cm.



- (a) Work out the area of the top of the table.

.....cm²

(2)

The base of the table is a circle.
The diameter of the base of the table is 40 cm.

- (b) Work out the circumference of the base of the table.

.....cm

(2)

(4 marks)

14.

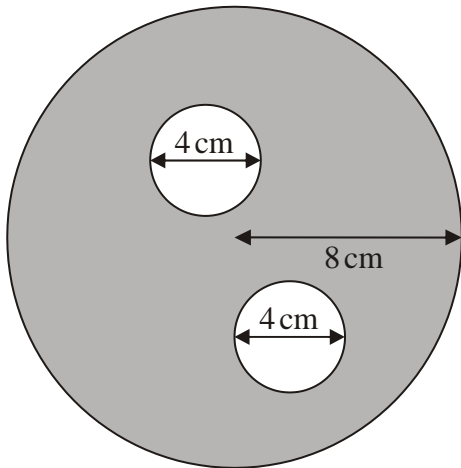


Diagram **NOT** accurately drawn

The diagram shows two small circles inside a large circle.
The large circle has a radius of 8 cm.

Each of the two small circles has a diameter of 4 cm.

(a) Write down the radius of each of the small circles.

..... cm

(1)

(b) Work out the area of the region shown shaded in the diagram.
Give your answer correct to one decimal place.

..... cm²

(4)

(5 marks)

37 Edexcel GCSE

Mathematics (Linear) – 1MA0

AREA OF COMPOUND SHAPES

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.

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Calculators may be used.

Information

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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.

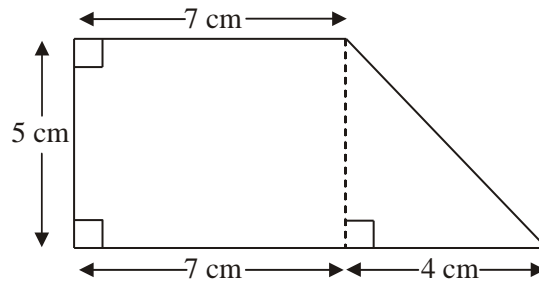


Diagram **NOT** accurately drawn

Work out the area of the shape.

..... cm^2
(Total 3 marks)

2.

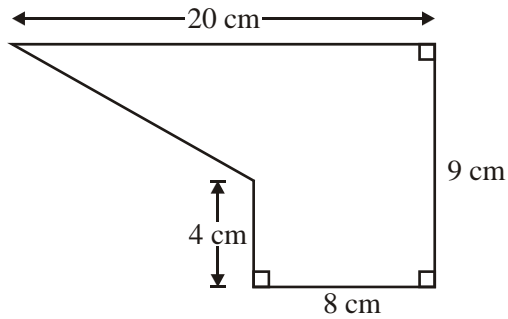


Diagram **NOT** accurately drawn

The diagram shows a shape.
Work out the area of the shape.

..... cm^2
(Total 4 marks)

3. Here is a trapezium.

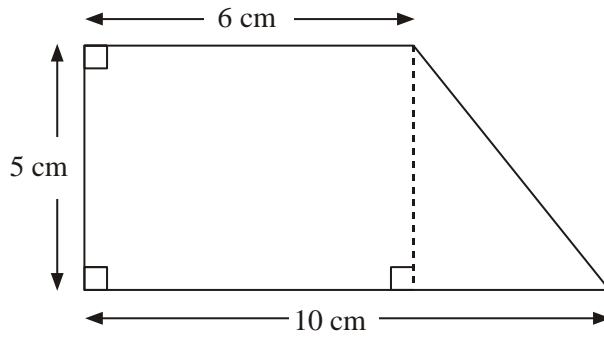


Diagram **NOT** accurately drawn

Work out the area of the trapezium.

..... cm^2
(Total 2 marks)

4. The diagram shows a wall with a door in it.

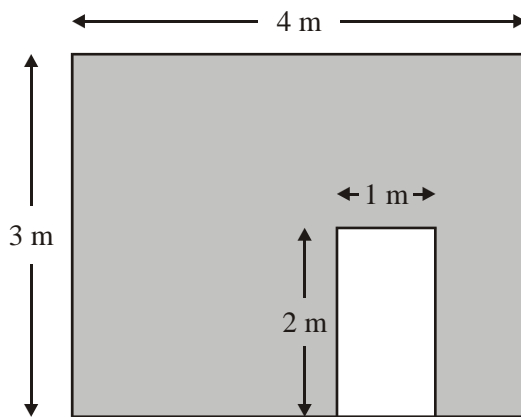
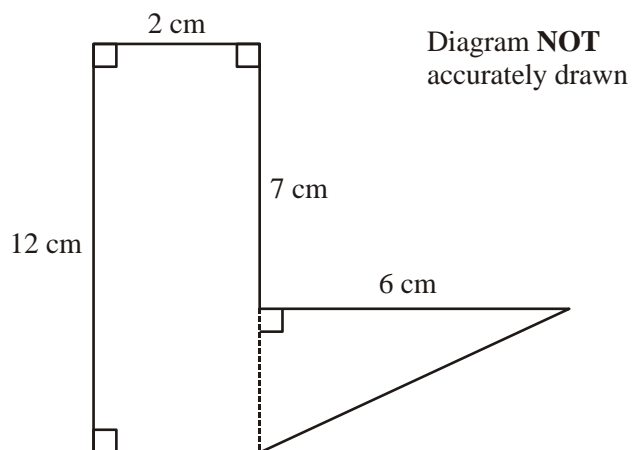


Diagram **NOT** accurately drawn

Work out the shaded area.

..... m^2
(3)
(Total 3 marks)

5. The diagram shows a 6-sided shape made from a rectangle and a right-angled triangle.



Work out the total area of the 6-sided shape.

.....cm²
(Total 3 marks)

6.

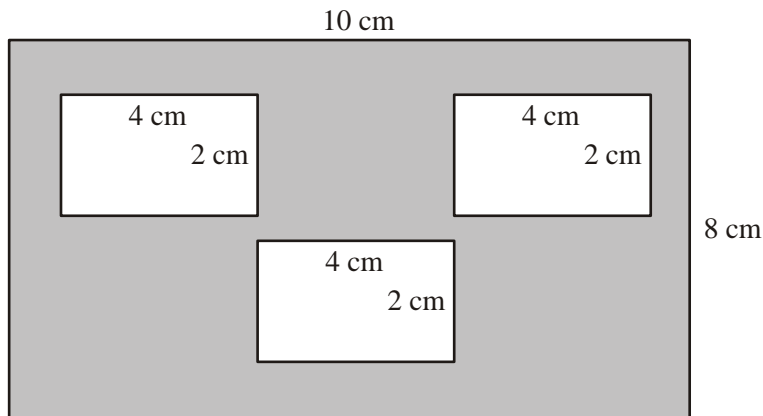


Diagram **NOT**
accurately drawn

The diagram shows 3 small rectangles inside a large rectangle.
The large rectangle is 10 cm by 8 cm.
Each of the 3 small rectangles is 4 cm by 2 cm.

Work out the area of the region shown shaded in the diagram.

.....cm²
(Total 3 marks)

7.

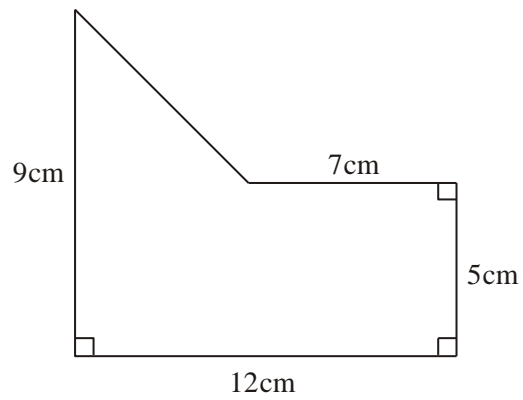


Diagram **NOT** accurately drawn

Work out the area of the shape.

..... cm^2
(Total 4 marks)

8.

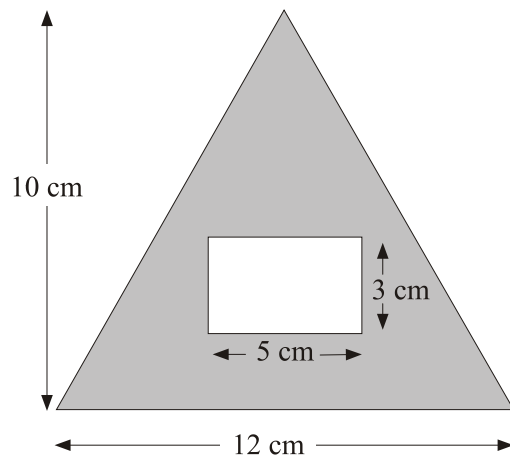


Diagram **NOT** accurately drawn

The diagram shows a rectangle inside a triangle.

The triangle has a base of 12 cm and a height of 10 cm.

The rectangle is 5 cm by 3 cm.

Work out the area of the region shown shaded in the diagram.

..... cm²
(Total 3 marks)

9.

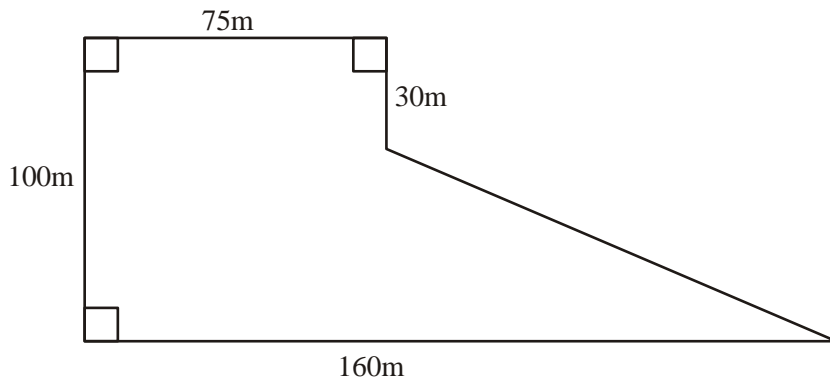


Diagram **NOT** accurately drawn

The diagram shows the plan of a field.
The farmer sells the field for £3 per square metre.

Work out the total amount of money the farmer should get.

£

(Total 5 marks)

38 Edexcel GCSE

Mathematics (Linear) – 1MA0

ROTATION

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.

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Advice

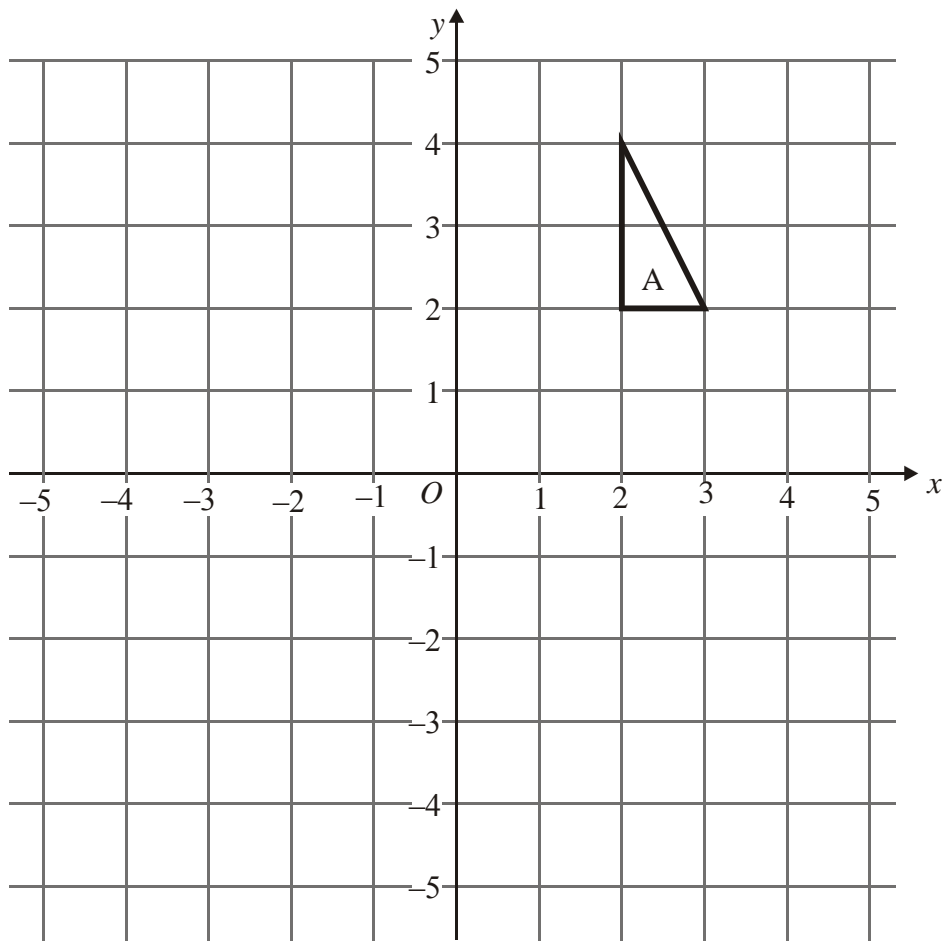
Read each question carefully before you start to answer it.

Keep an eye on the time.

Try to answer every question.

Check your answers if you have time at the end.

1.

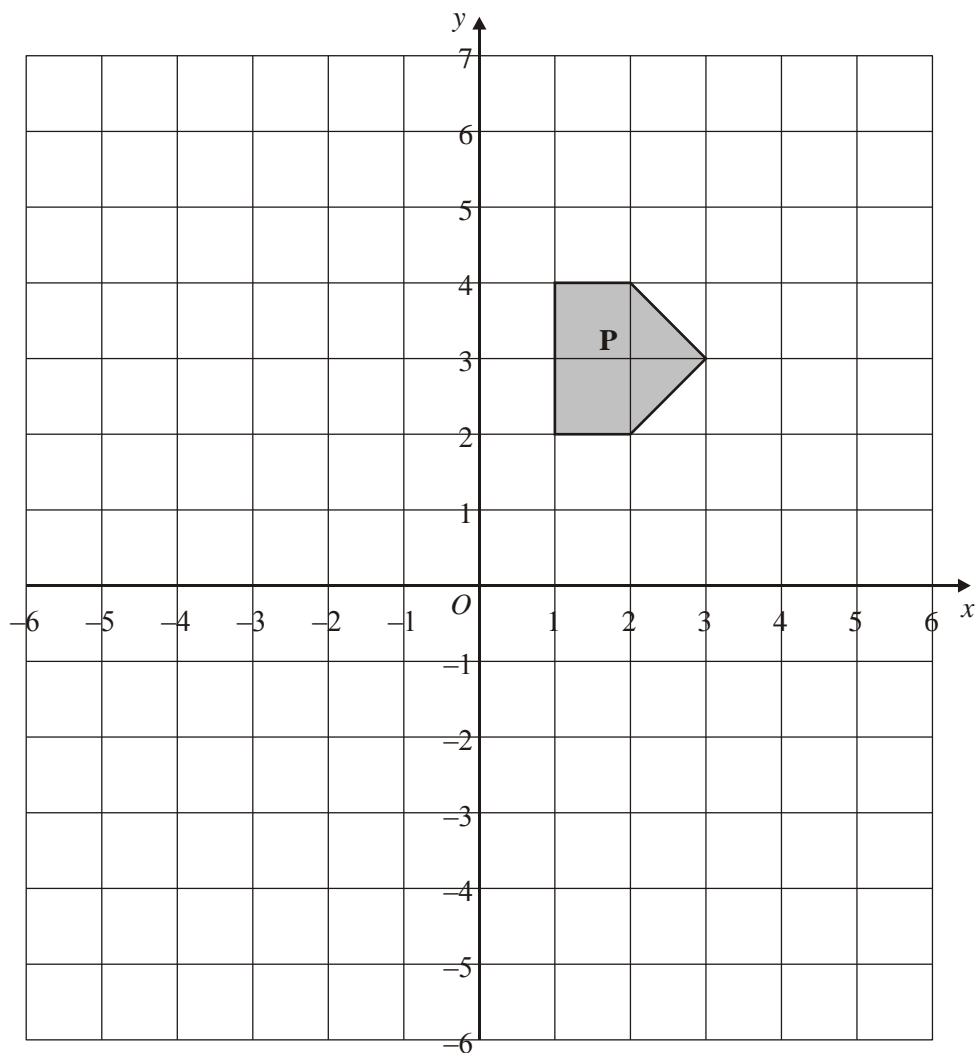


On the grid, rotate triangle A 180° about O .

Label your new triangle **B**.

(2)
(Total 2 marks)

2.



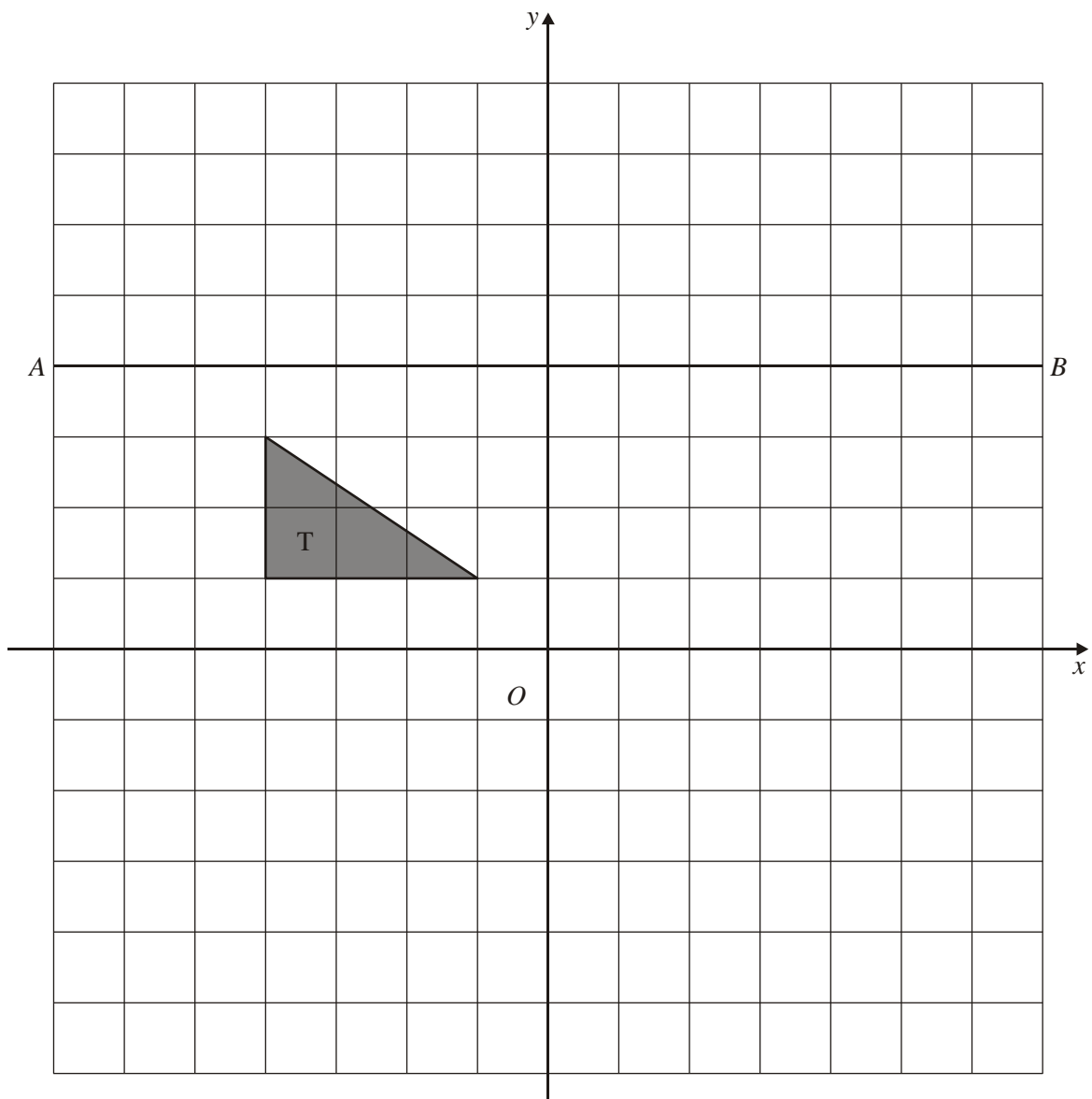
On the grid, rotate the shaded shape **P** one quarter turn anticlockwise about *O*.

Label the new shape **Q**.

(3)

(Total 3 marks)

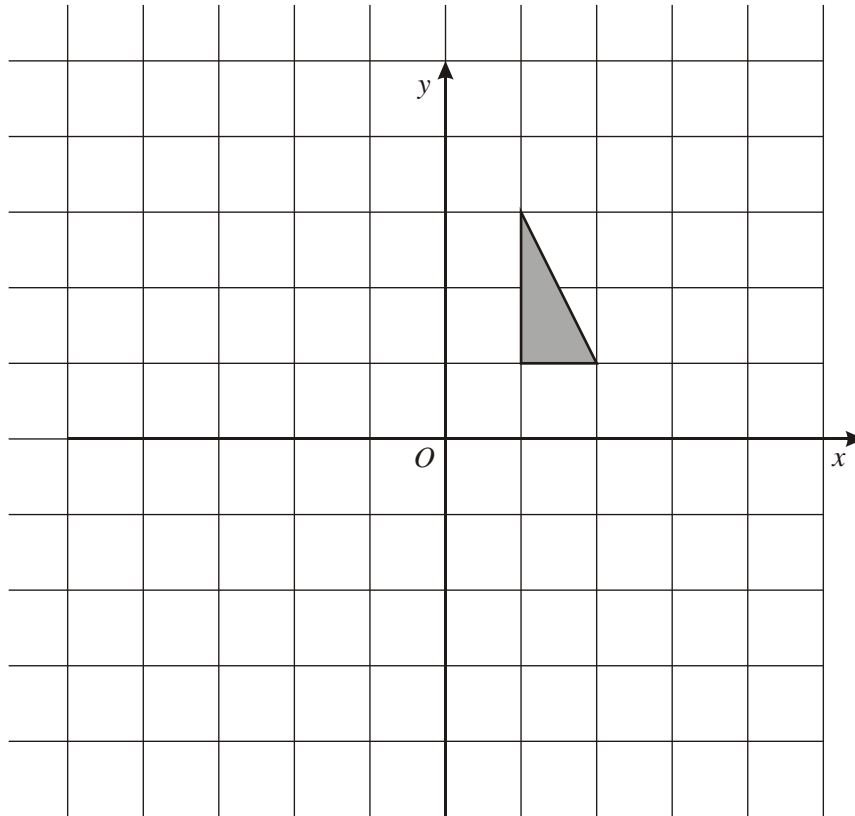
3.



Rotate the triangle a quarter turn anticlockwise, centre O .

(Total 2 marks)

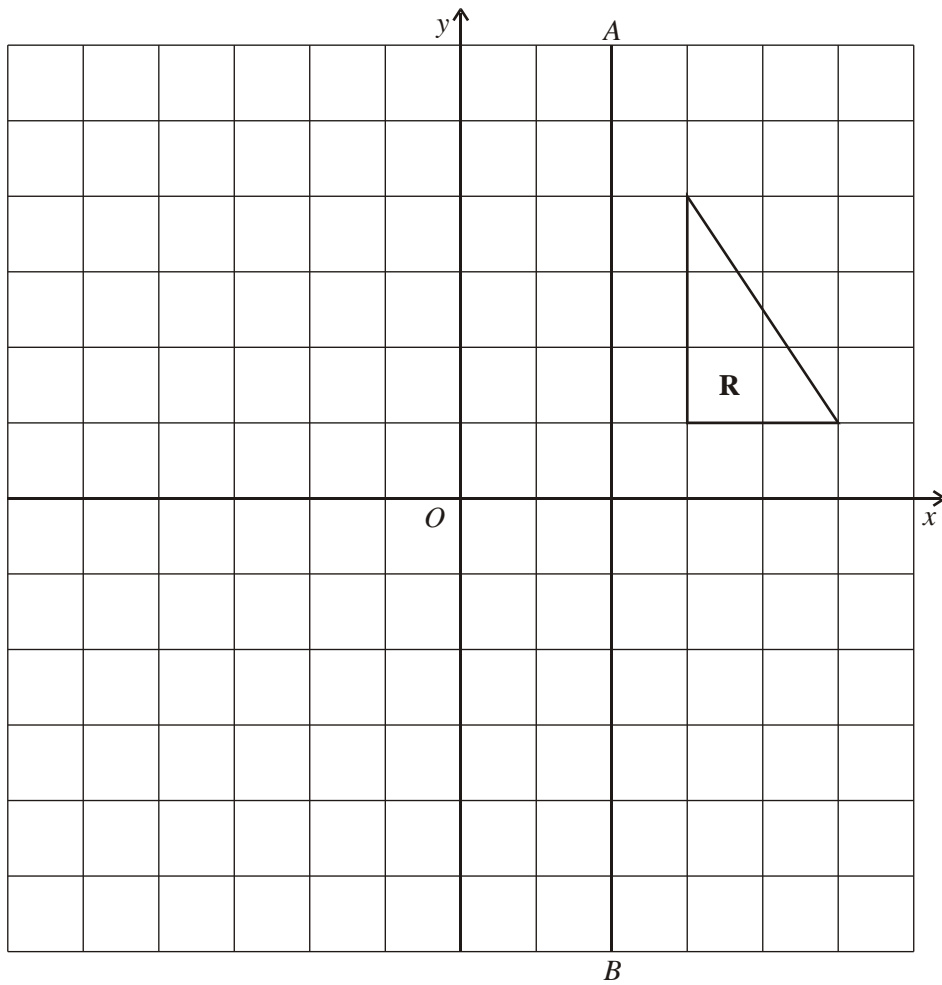
4.



Rotate the triangle a half turn about the point O .

(Total 2 marks)

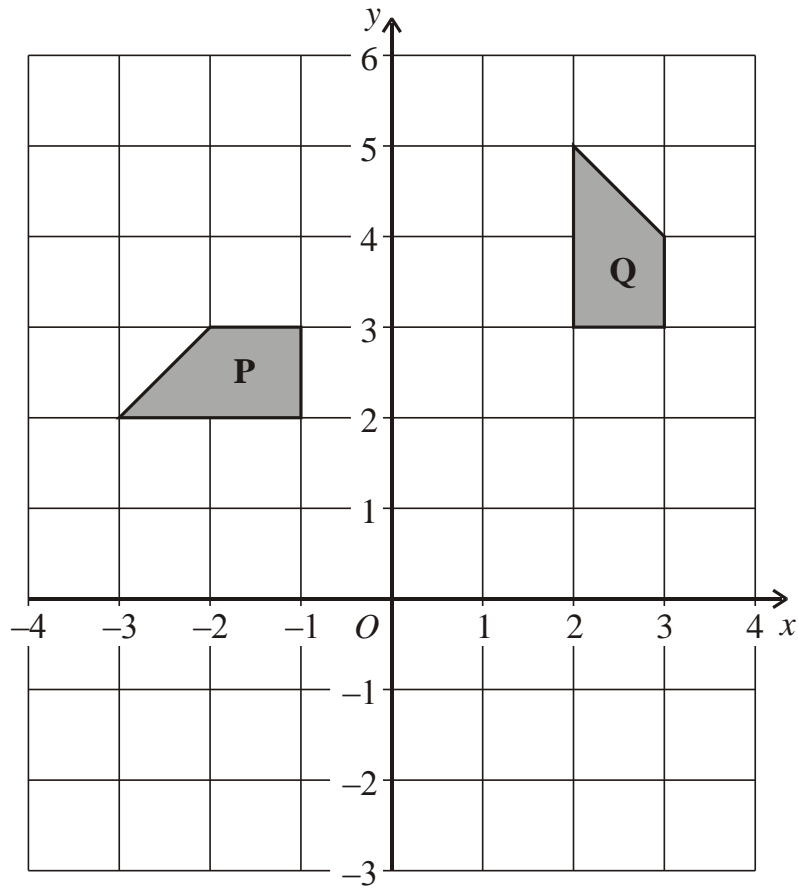
5.



Rotate triangle **R** a half turn about the point O .
Label the new triangle **T**.

(2)
(Total 2 marks)

6.



Describe fully the single transformation that maps shape **P** onto shape **Q**.

.....

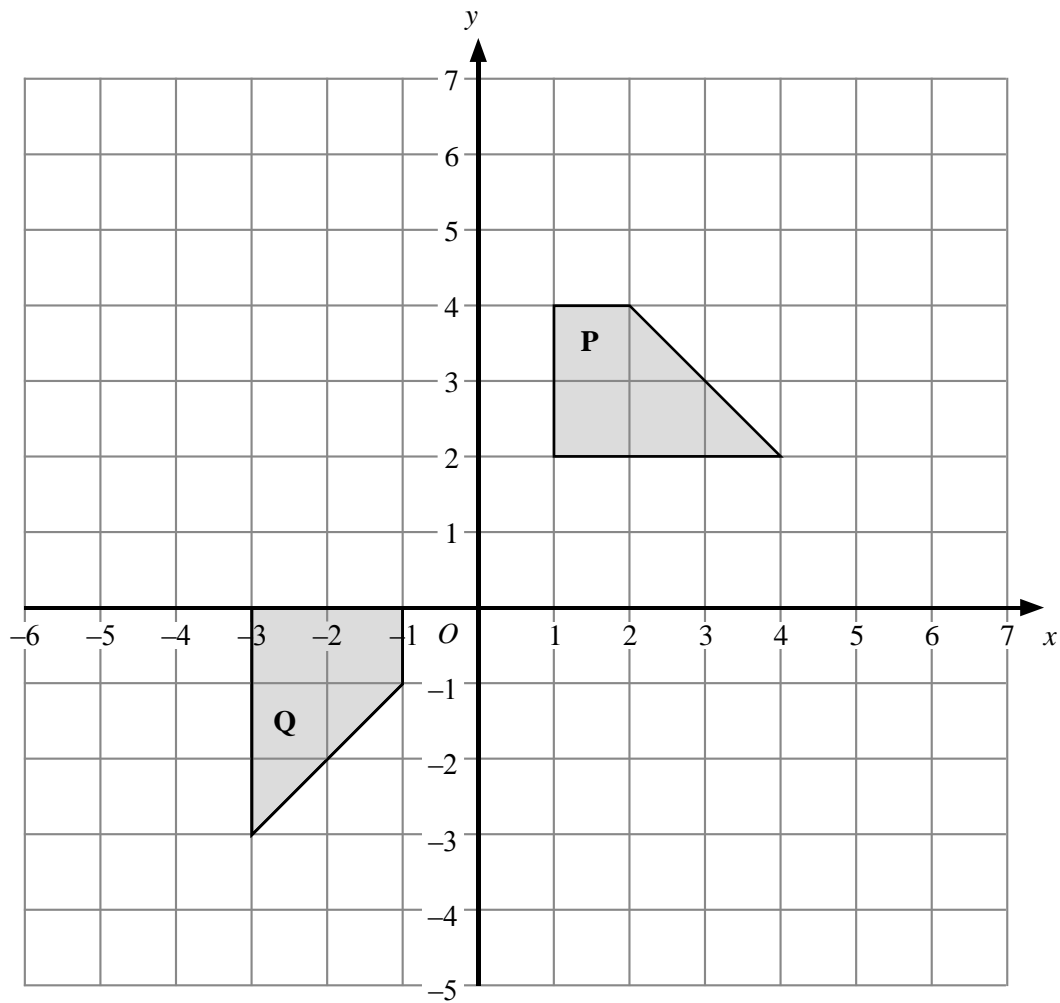
.....

.....

.....

(Total 3 marks)

7.



Describe fully the single transformation that will map shape **P** onto shape **Q**.

.....

.....

.....

(Total 3 marks)

39 Edexcel GCSE

Mathematics (Linear) – 1MA0

REFLECTION

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

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

Answer all questions.

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Calculators may be used.

Information

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Advice

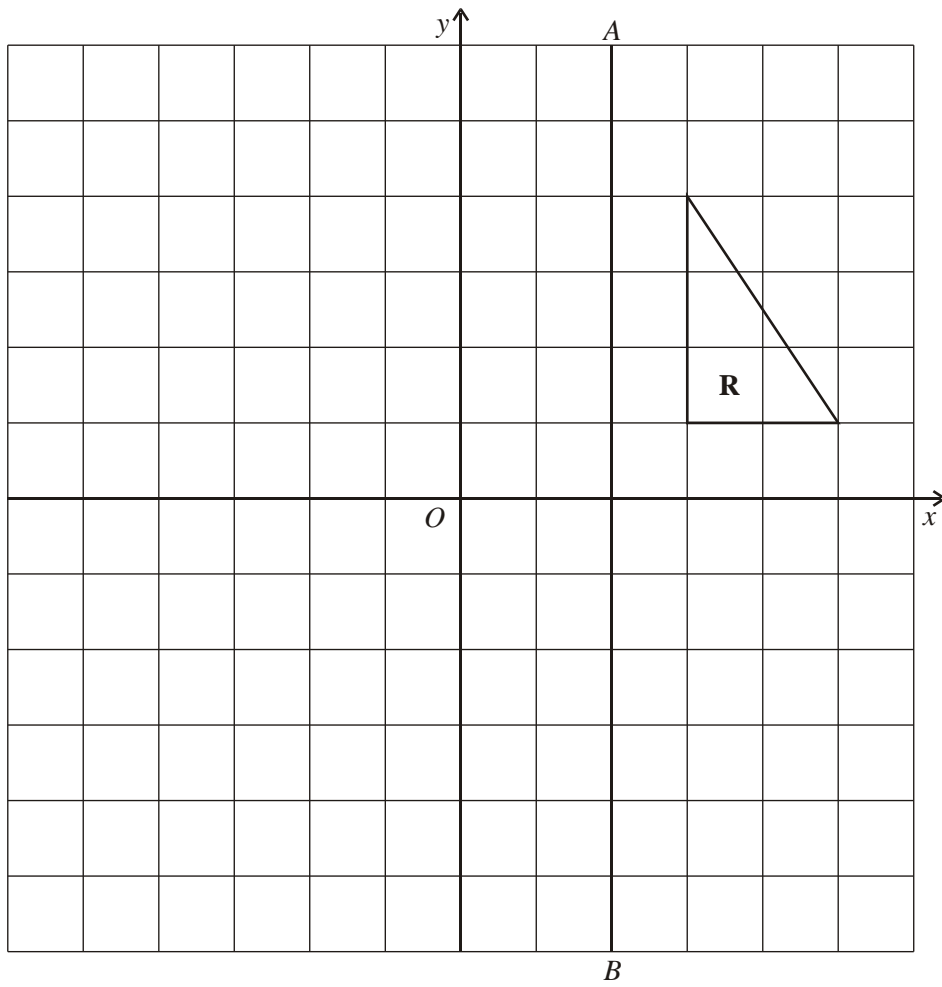
Read each question carefully before you start to answer it.

Keep an eye on the time.

Try to answer every question.

Check your answers if you have time at the end.

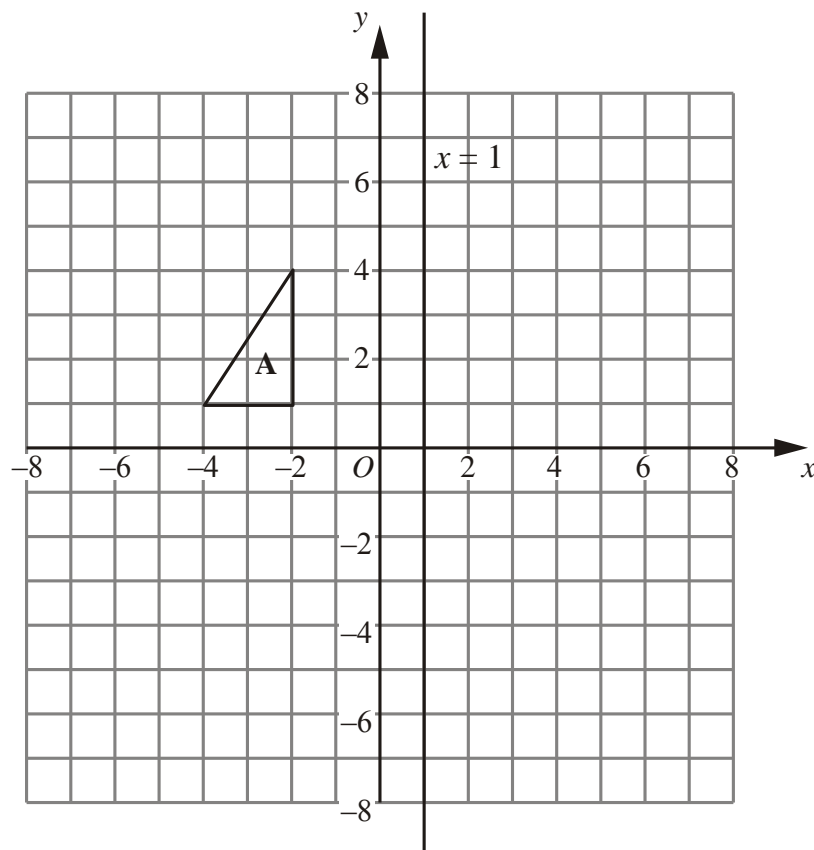
1.



Reflect triangle **R** in the line AB .
Label the new triangle **S**.

(2)
(Total 2 marks)

2.



Triangle **A** is reflected in the x -axis to give triangle **B**.

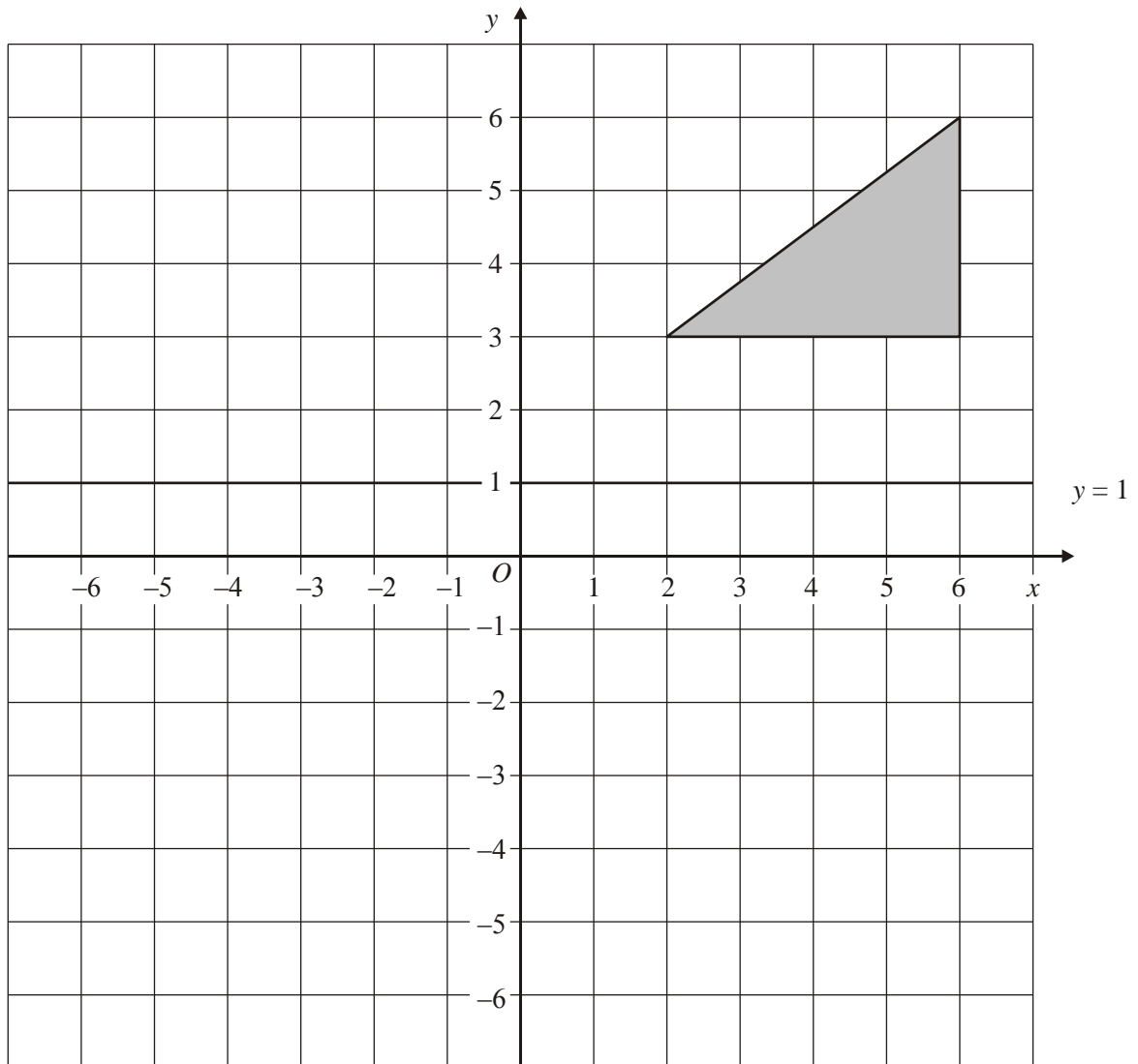
Draw the triangle **B** and label it **B**.

Triangle **B** is reflected in the line $x = 1$ to give triangle **C**.

Draw the triangle **C** and label it **C**.

(Total 4 marks)

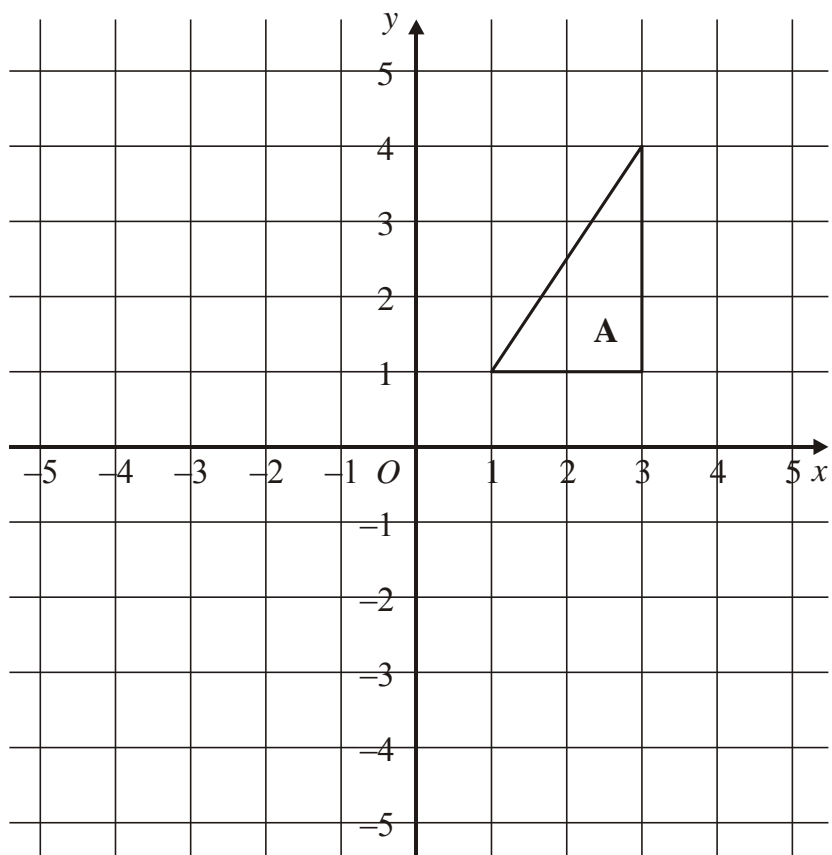
3.



Reflect the triangle in the line $y = 1$

(Total 2 marks)

4.



Triangle **A** is reflected in the y axis to give triangle **B**.

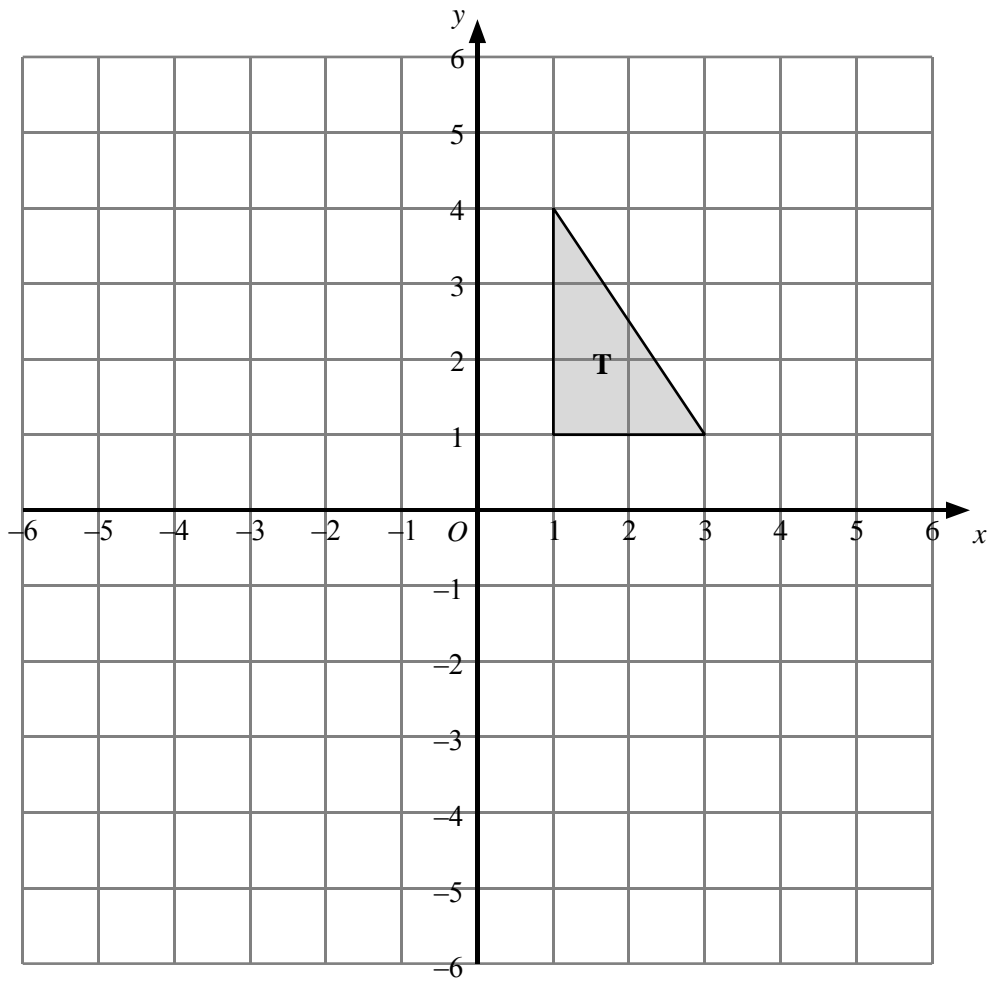
Draw the triangle **B** and label it **B**.

Triangle **B** is then reflected in the x axis to give triangle **C**.

Draw the triangle **C** and label it **C**.

(Total 4 marks)

5.



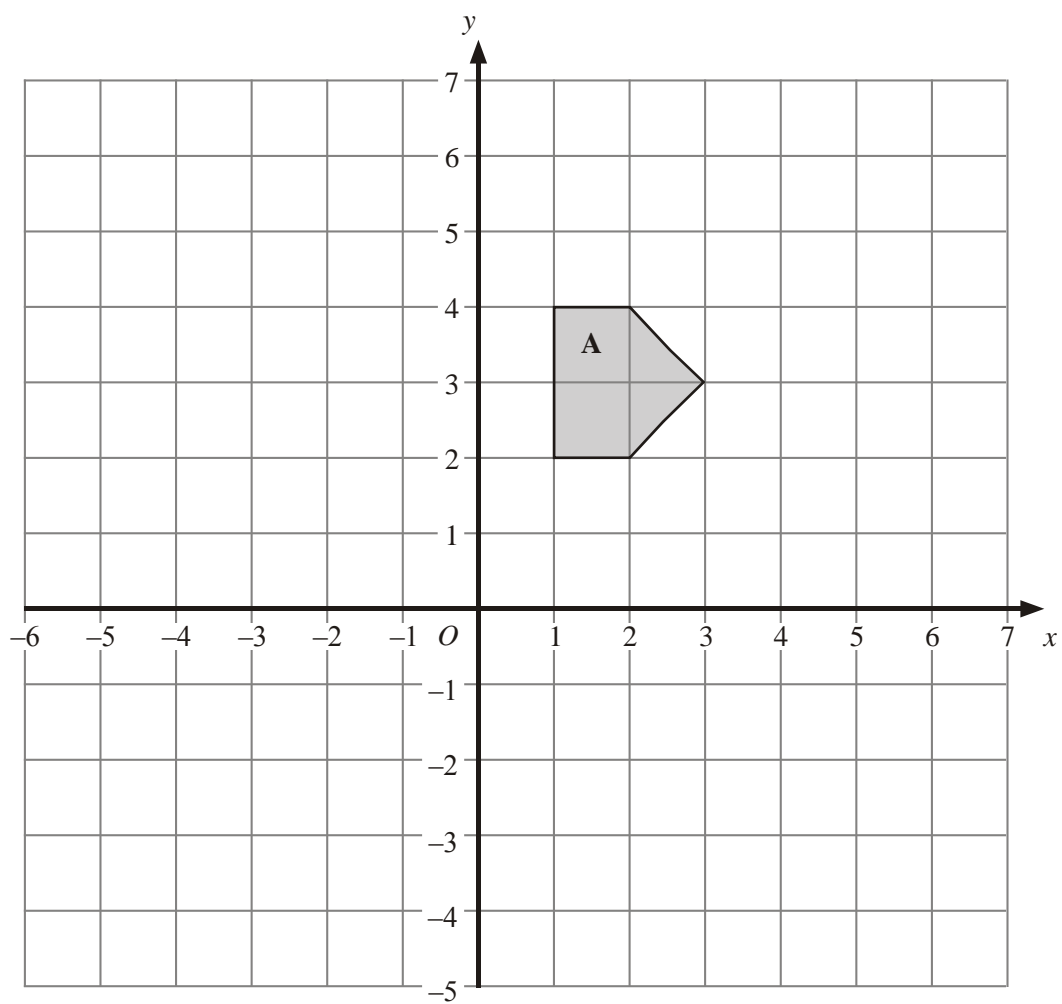
Triangle **T** has been drawn on the grid.

Reflect triangle **T** in the y-axis.
Label the new triangle **A**.

(2)

(Total 2 marks)

6.



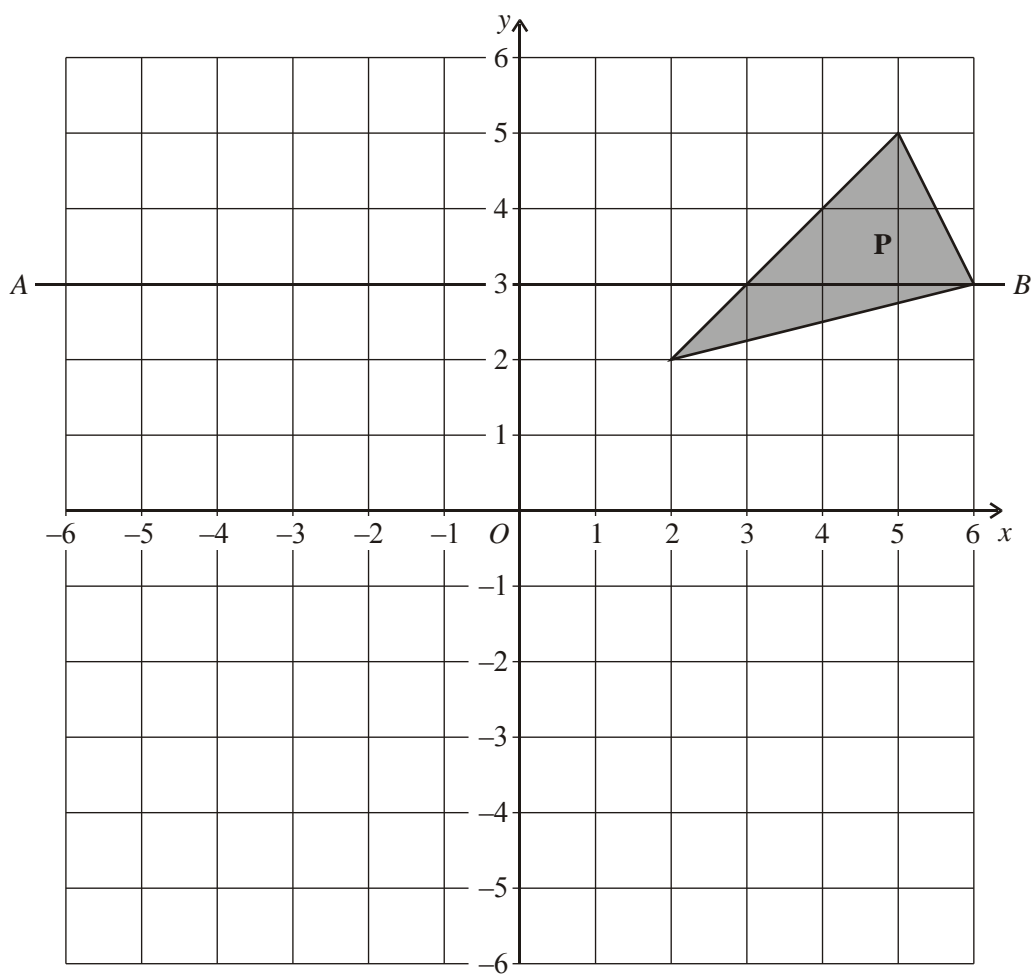
Reflect Shape **A** in the y axis.

Label your new shape **B**.

(2)

(Total 2 marks)

7.



On the grid, reflect triangle **P** in the y -axis.

Label the new shape, **Q**.

(1)

The line AB is drawn on the grid.

(b) On the grid, reflect triangle **P** in the line AB .
Label the new shape, **R**.

(1)

(Total 2 marks)

40 Edexcel GCSE

Mathematics (Linear) – 1MA0

ENLARGEMENT

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.

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Calculators may be used.

Information

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Advice

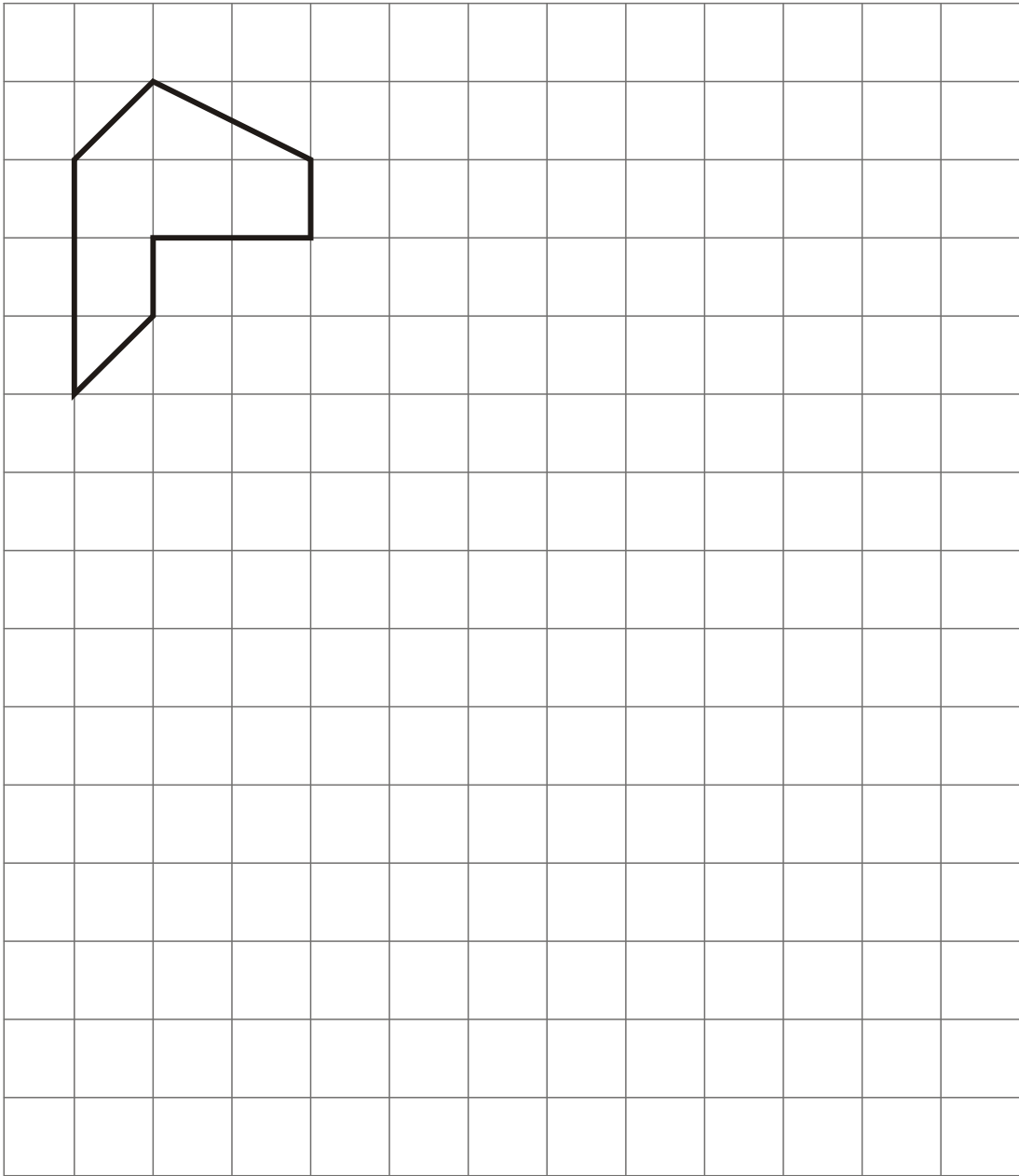
Read each question carefully before you start to answer it.

Keep an eye on the time.

Try to answer every question.

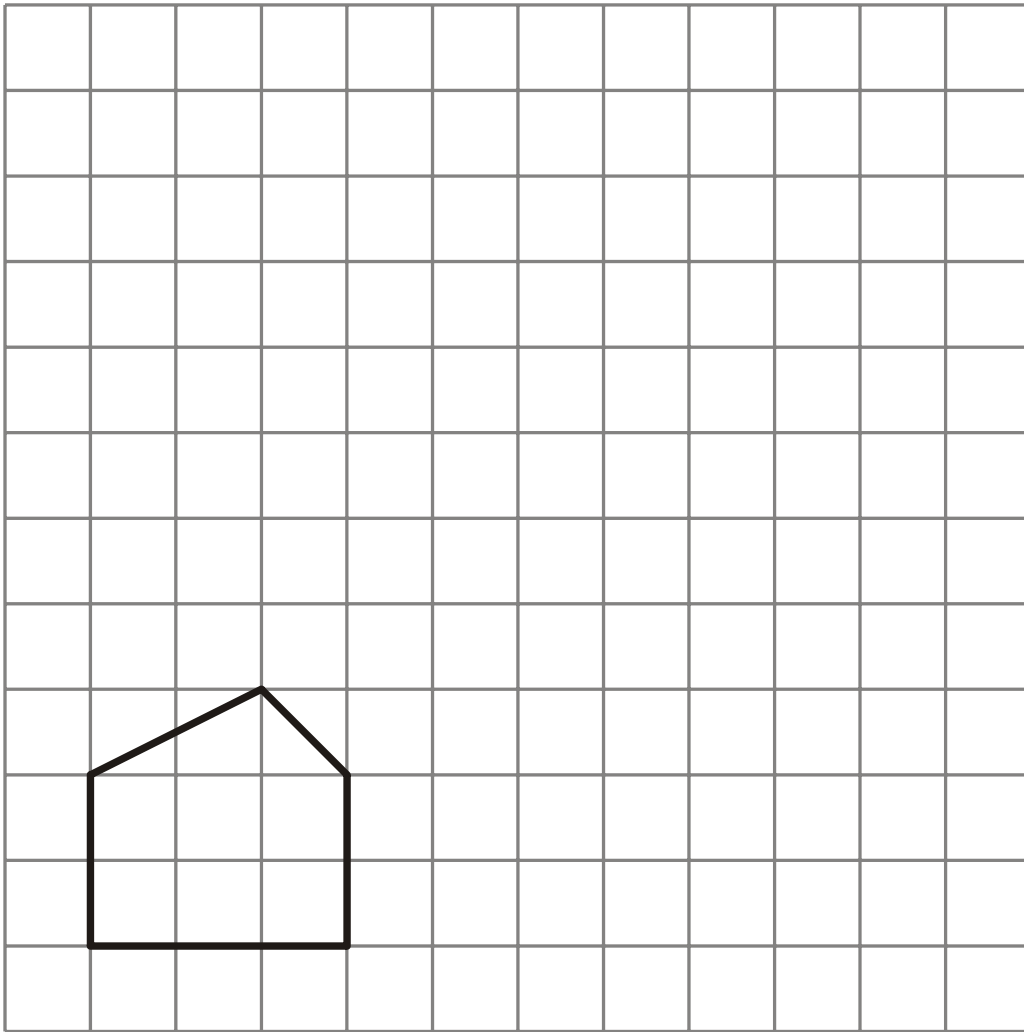
Check your answers if you have time at the end.

1. On the grid, enlarge the shape with a scale factor of 2.



(Total 2 marks)

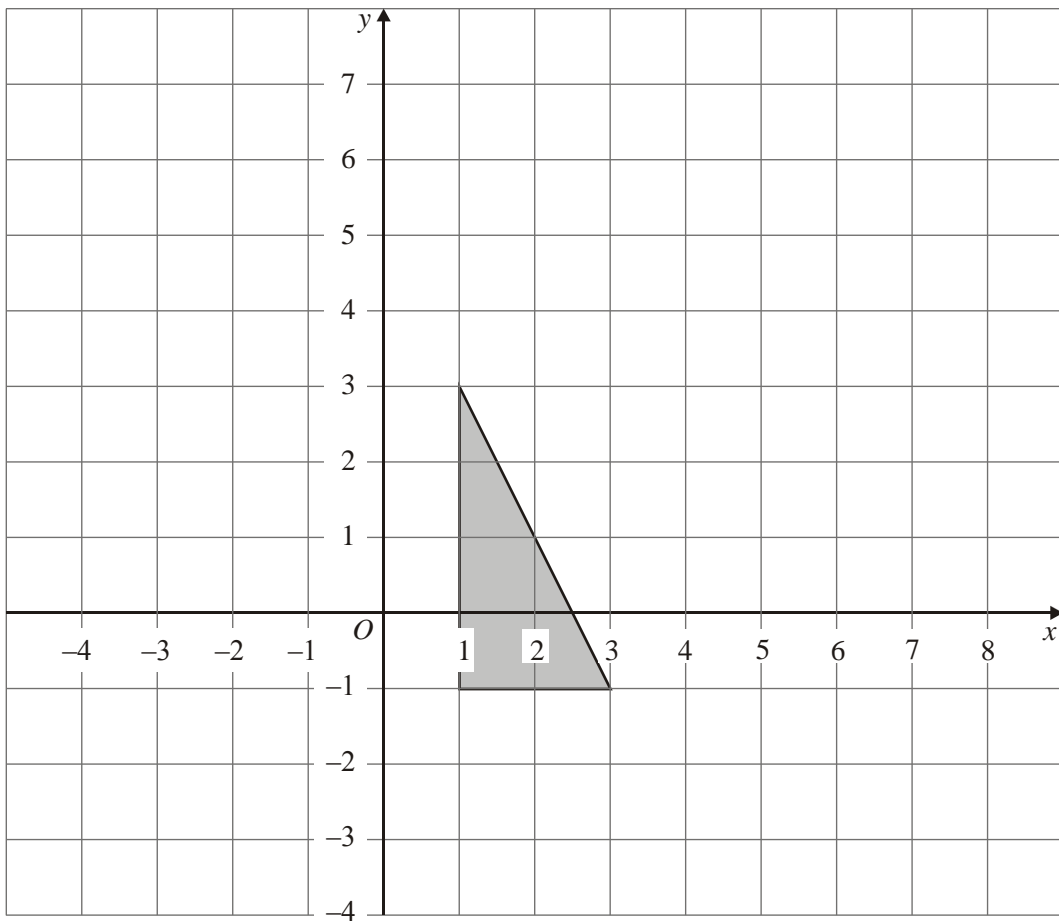
2.



On the grid, enlarge the shape with a scale factor of 2

(Total 2 marks)

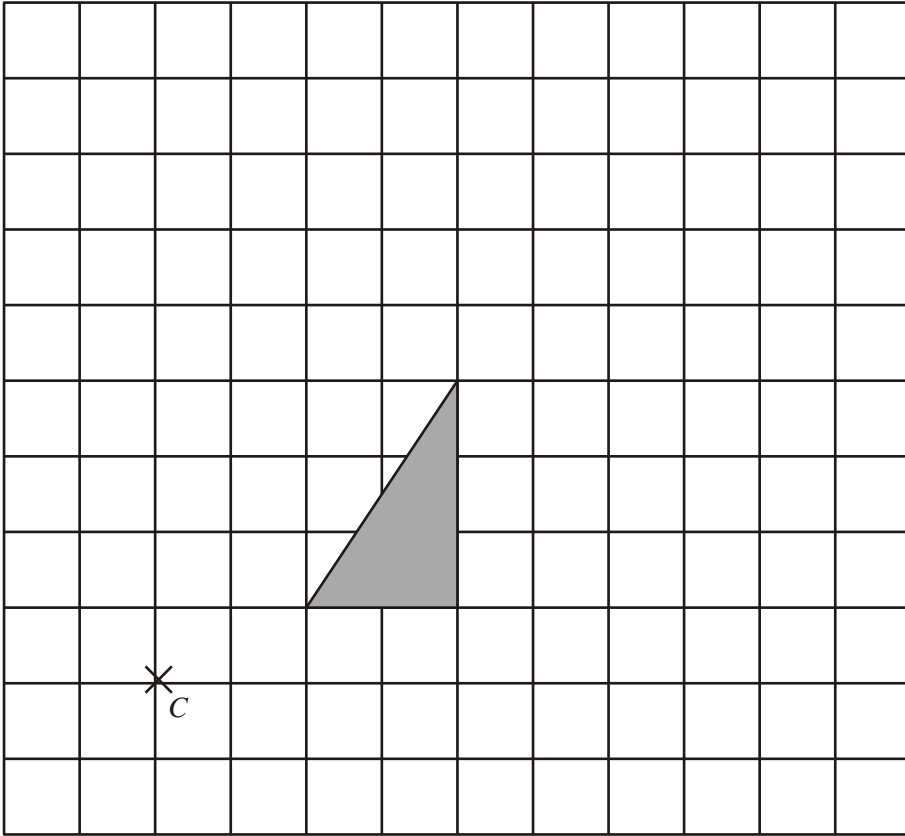
3.



Enlarge the shaded triangle by a scale factor 2, centre 0.

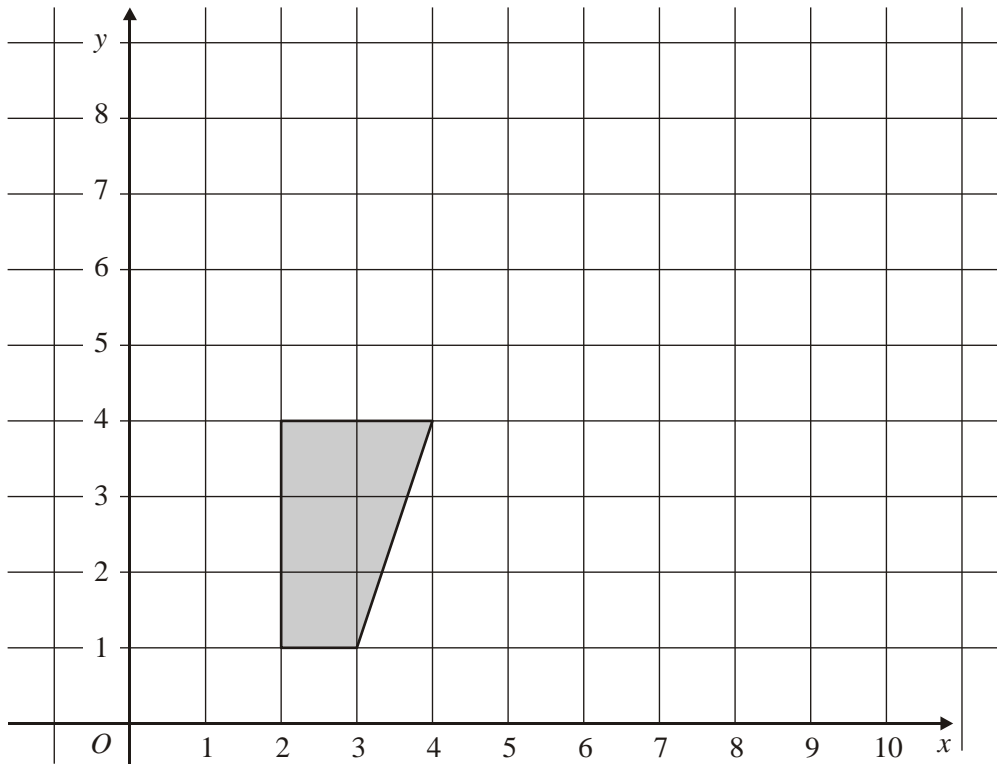
(Total 3 marks)

4.



On the grid, enlarge the shaded triangle by a scale factor of 2, centre *C*.
(Total 3 marks)

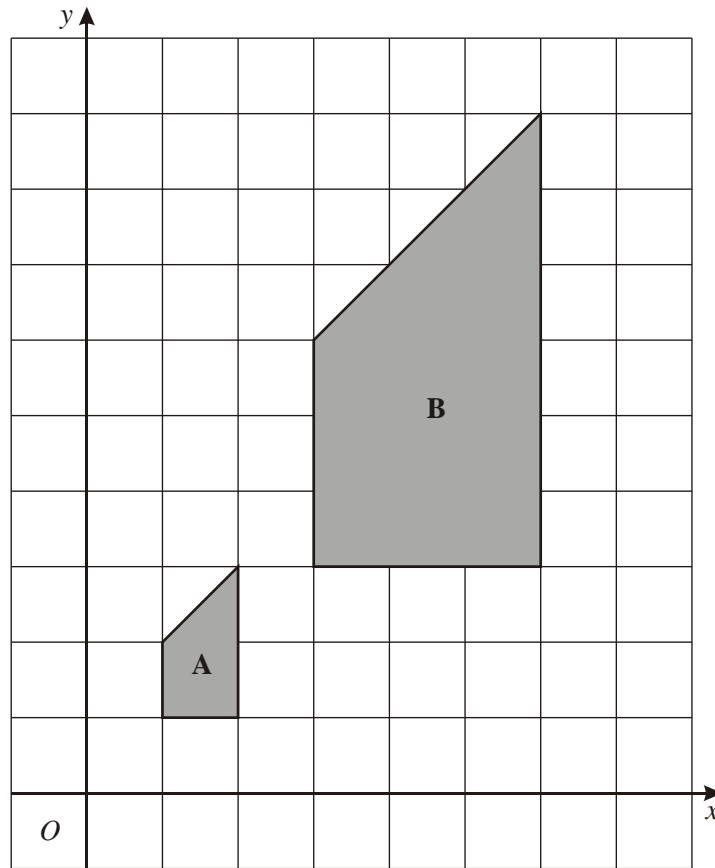
5.



On the grid, enlarge the shaded shape by scale factor of 2, centre (1,1).

(Total 3 marks)

6.



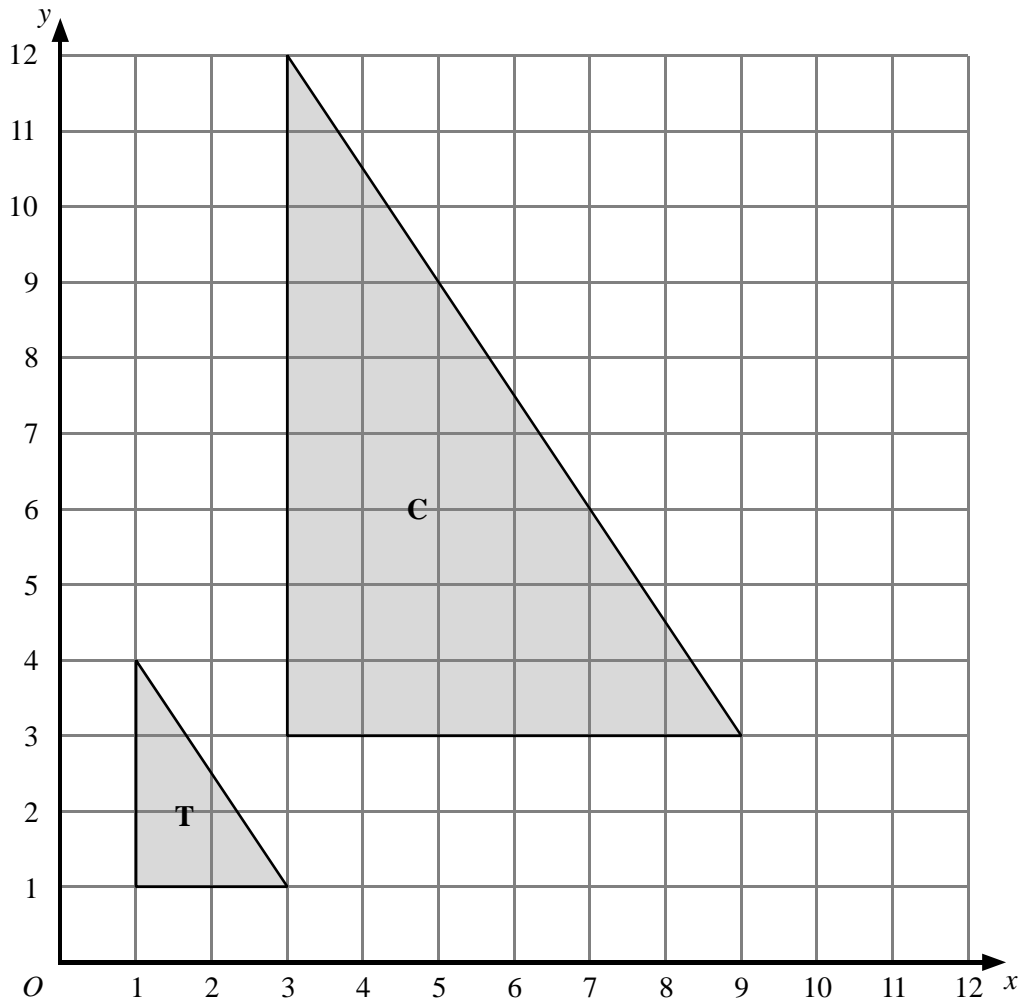
Describe fully the single transformation which takes shape A onto shape B.

.....

.....

(Total 3 marks)

7.



(c) Describe fully the single transformation which maps triangle **T** onto triangle **C**.

.....
.....

(3)
(Total 3 marks)