


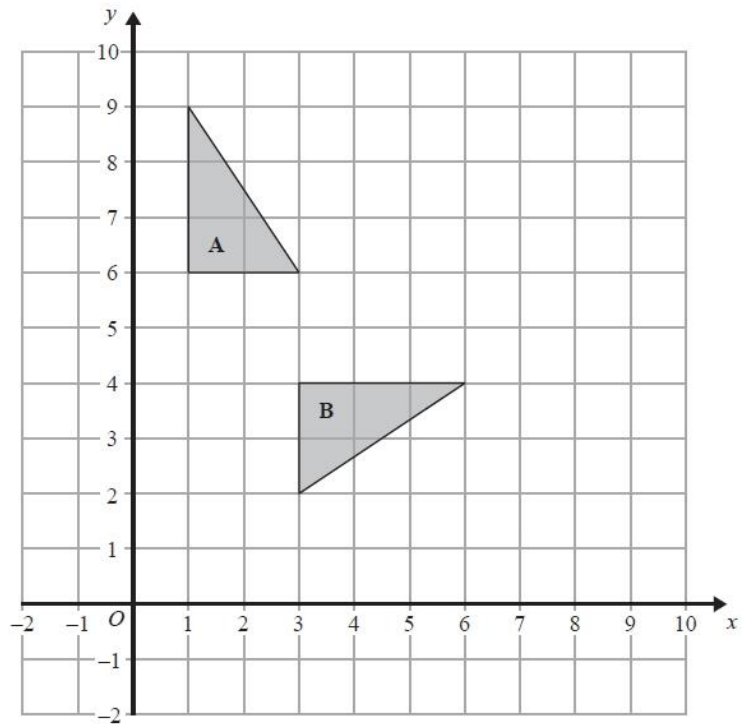


COUNTDOWN TO YOUR FINAL MATHS EXAM ... PART 3

	Marks	Actual	  
Q1. Rotations	3		
Q2. Rotations/Reflections	4		
Q3. Reflections & Translations	4		
Q4. Reflections with Rotations	3		
Q5. Enlargements	3		
Q6. Enlargements	3		
Q7. Translations	2		
Q8. Fractional/Negative Enlargements	2		
Q9. Translations/Rotations	4		
Q10. Rotations/Enlargements	5		
Q11. Ratio	4		
Q12. Ratio	4		
Q13. Ratio	5		
Q14. Ratio	7		
Q15. Proportion	3		
Q16. Proportion	3		

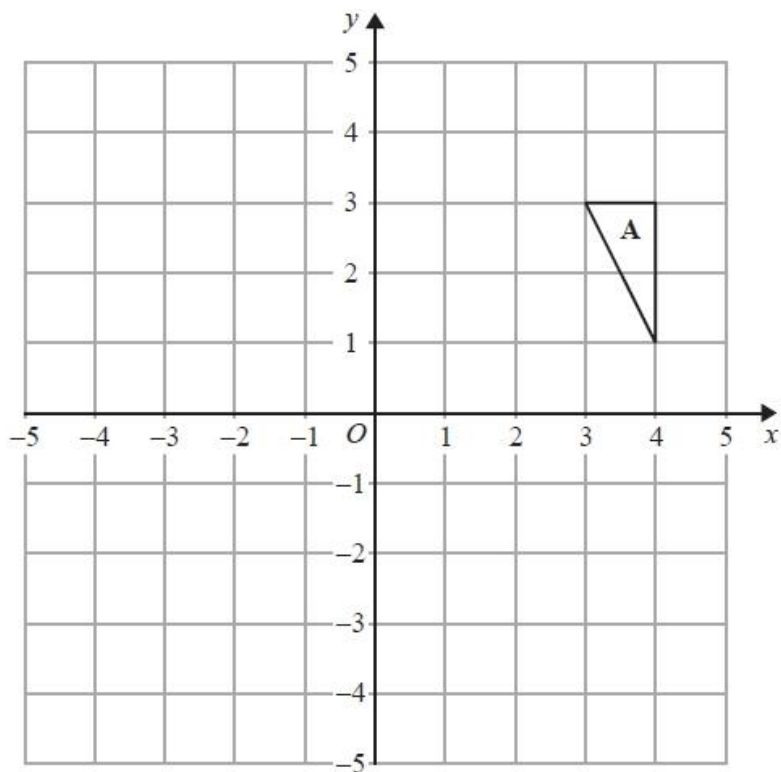
Q1.



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

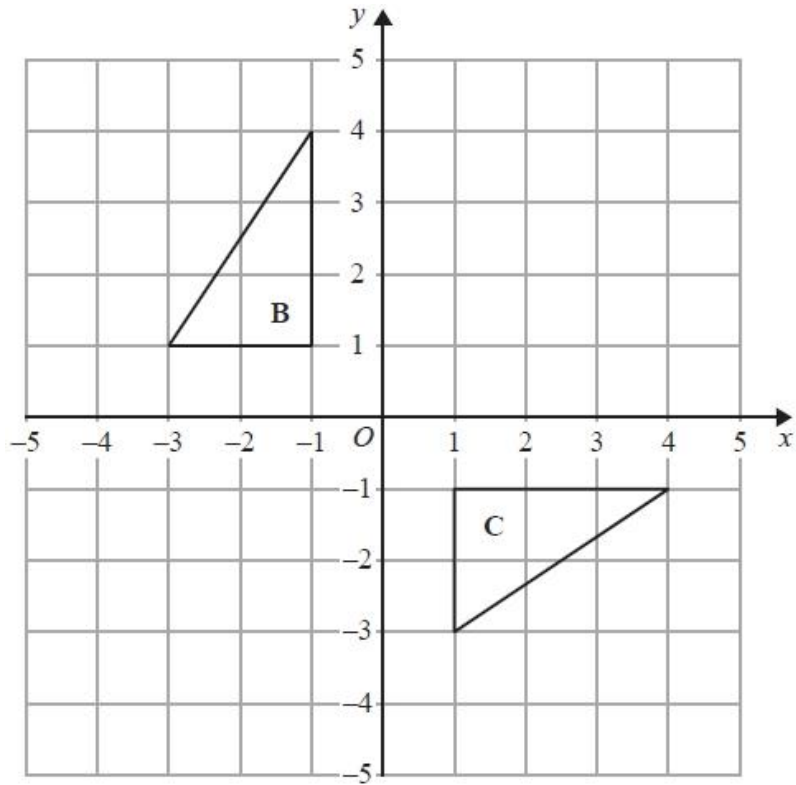
(3)

Q2.



(a) Rotate triangle **A** 90° anticlockwise with centre **O**.

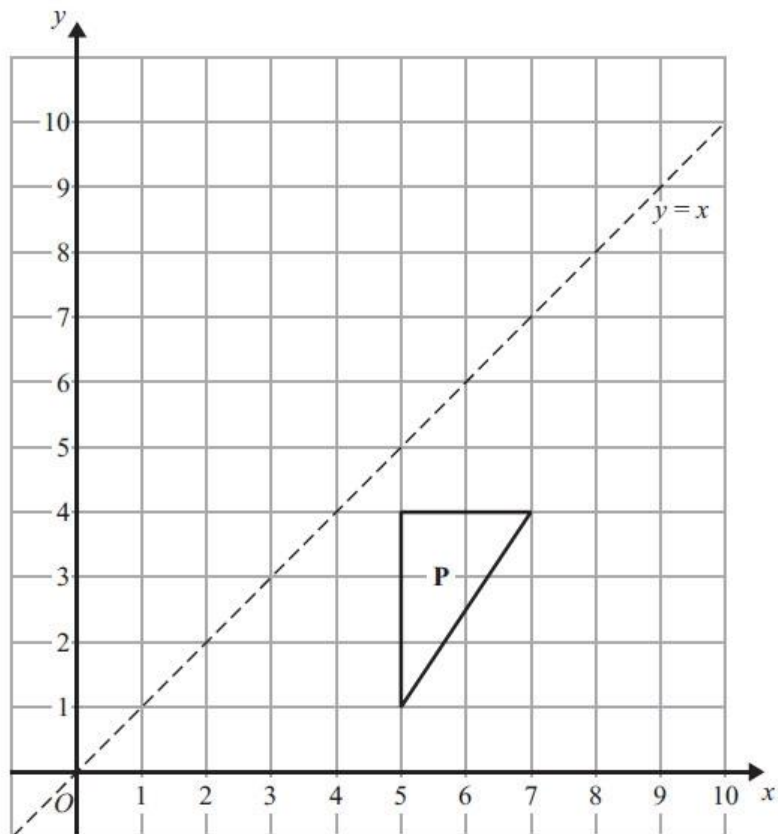
(2)



(b) Describe fully the single transformation that maps triangle **B** onto triangle **C**.

.....
 (2)

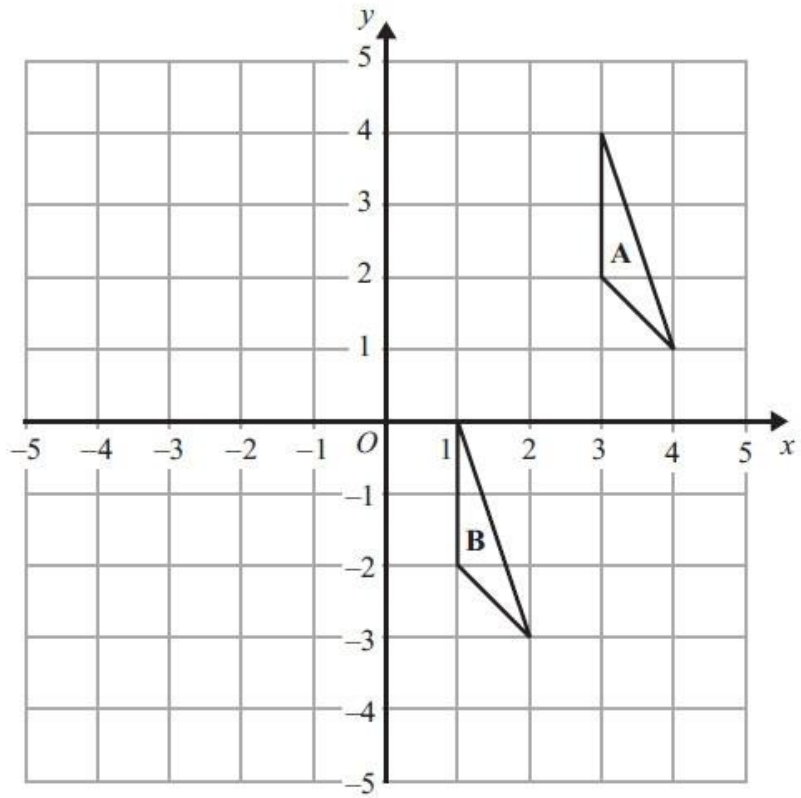
Q3. (a)



Reflect shape **P** in the line $y = x$

(2)

(b)

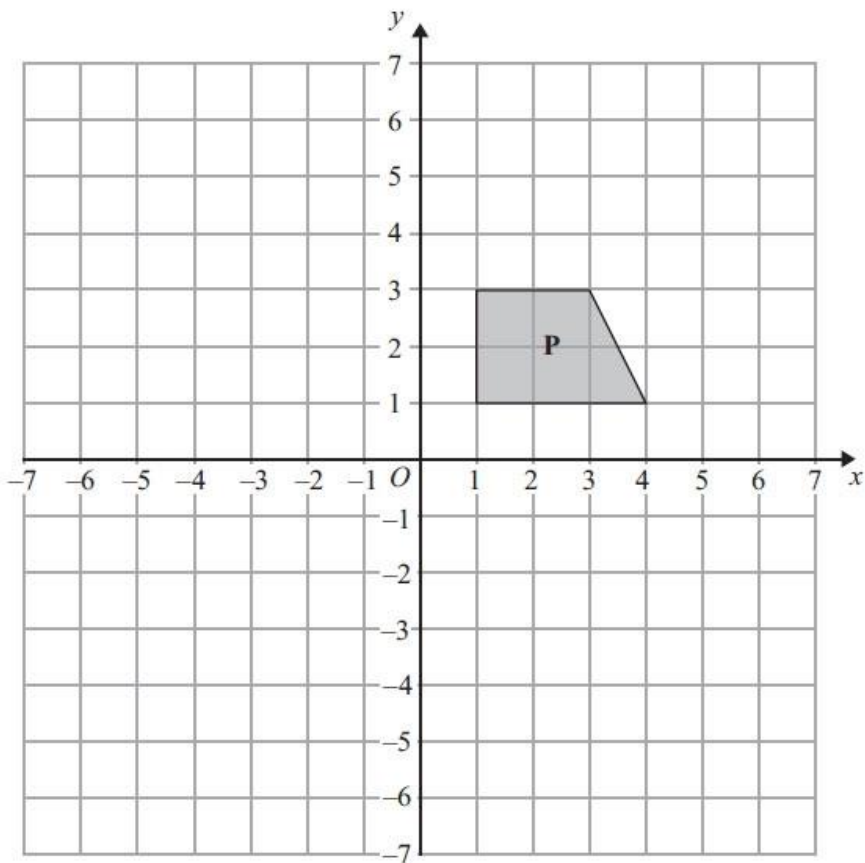


Describe fully the single transformation that maps triangle **A** onto triangle **B**.

.....
.....

(2)

Q4.



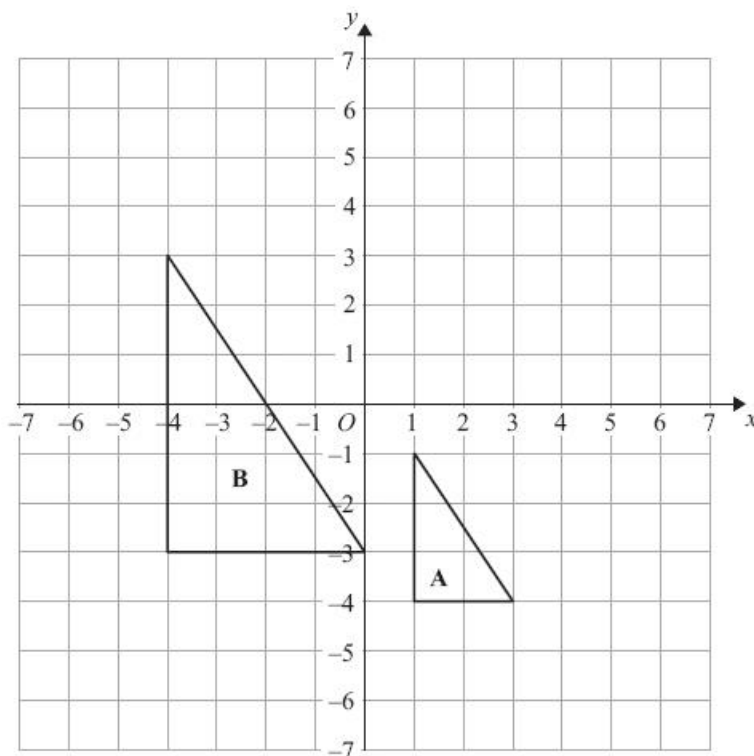
Shape **P** is reflected in the line $x = -1$ to give shape **Q**.

Shape **Q** is reflected in the line $y = 0$ to give shape **R**.

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

.....
..... (3)

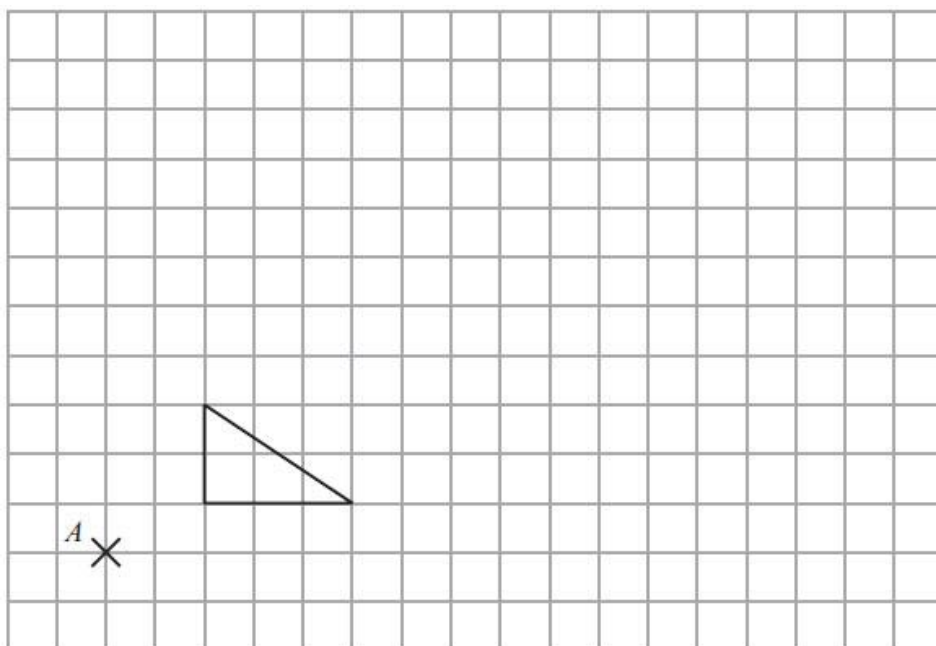
Q5.



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

.....
..... (3)

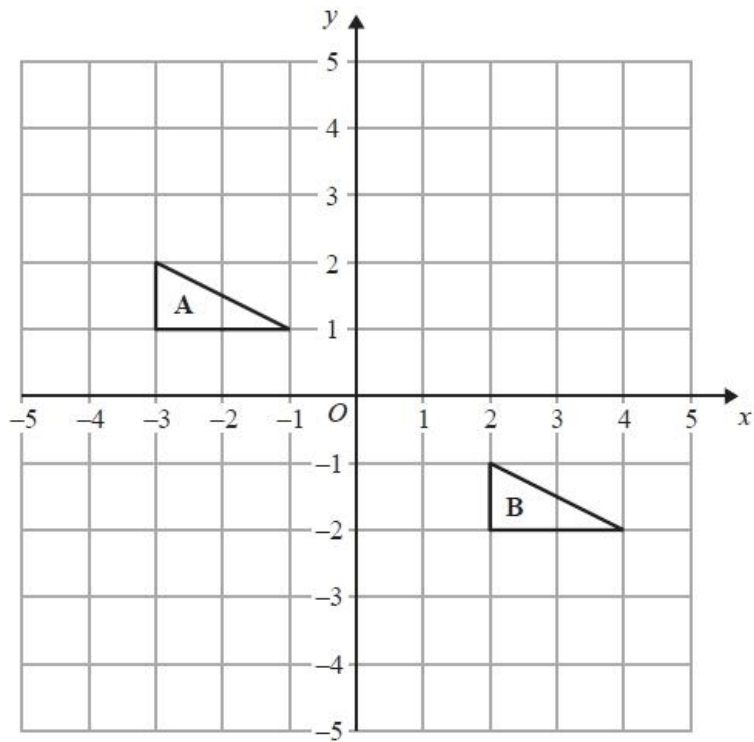
Q6.



On the grid, enlarge the shape with scale factor 3, centre **A**.

(3)

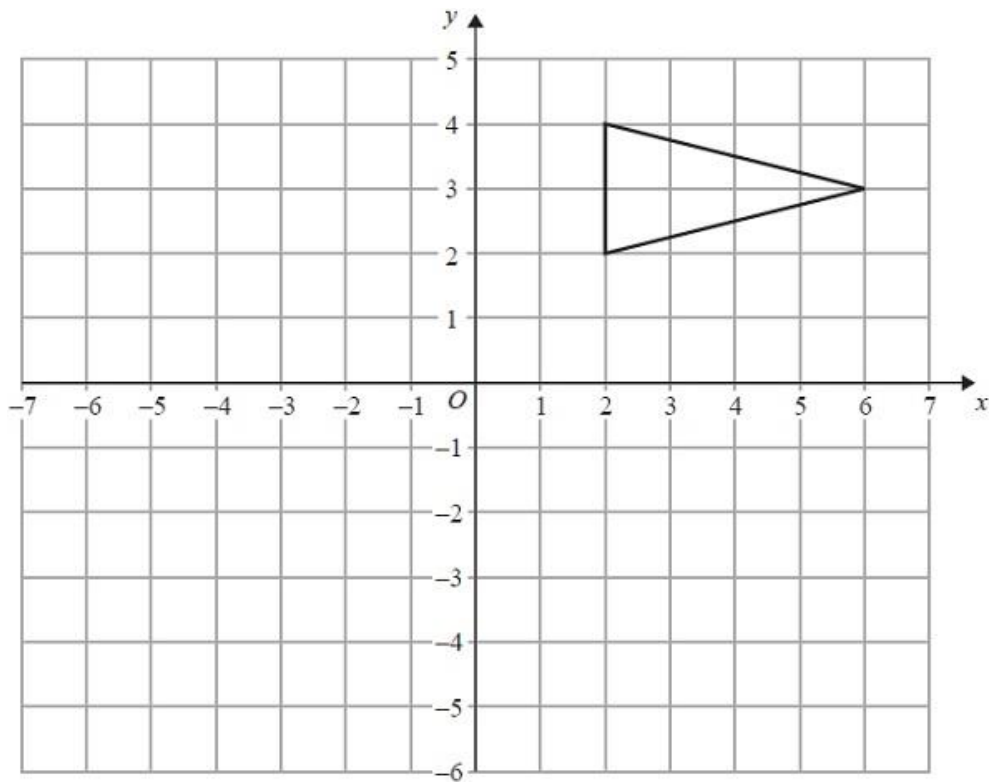
Q7.



Describe the single transformation that maps triangle **A** onto triangle **B**.

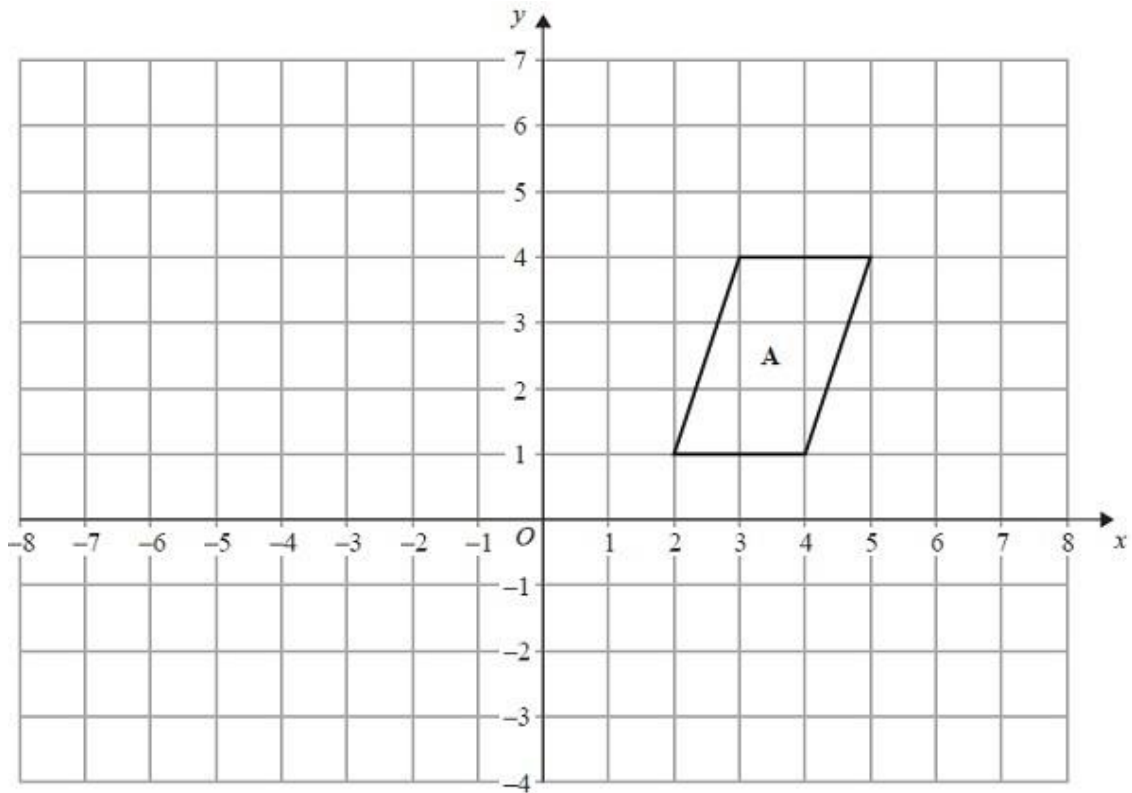
.....
..... (2)

Q8.

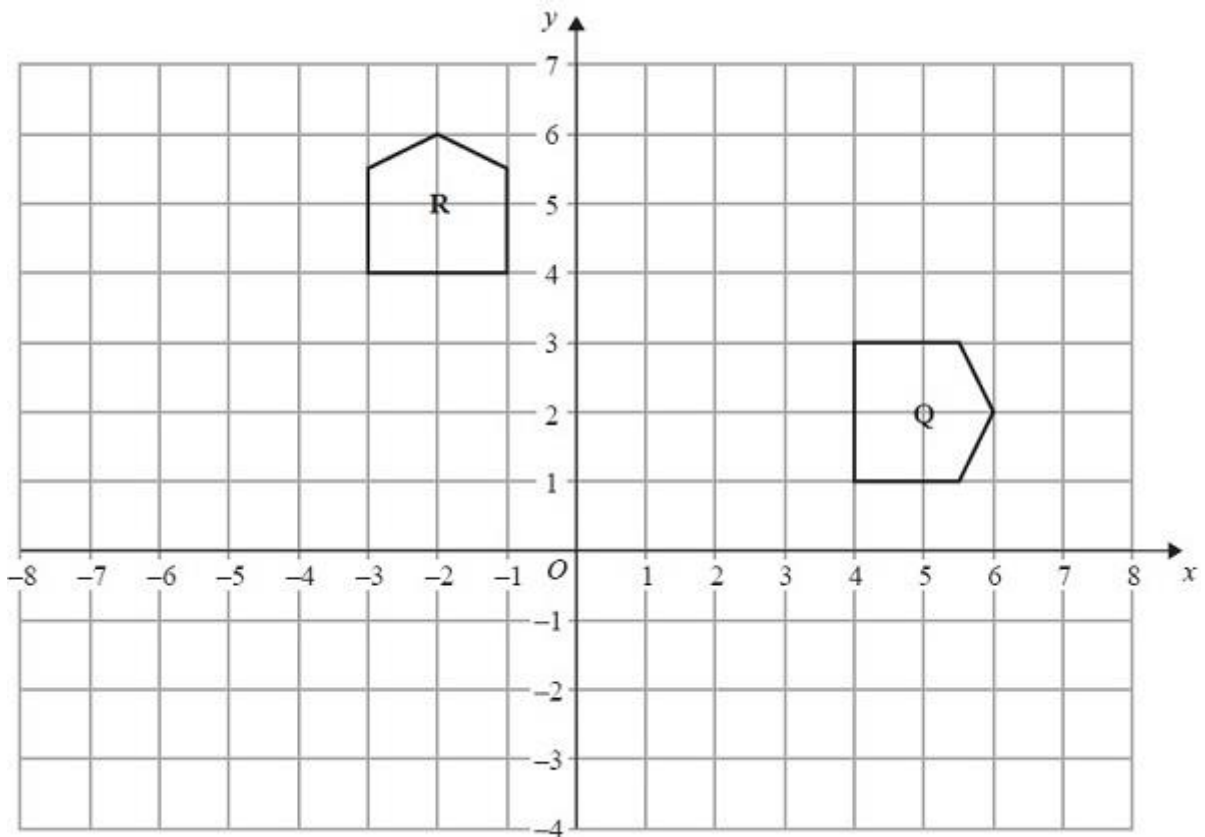


On the grid, enlarge the triangle by scale factor $\frac{1}{2}$, centre $(0, -2)$. (2)

Q9.

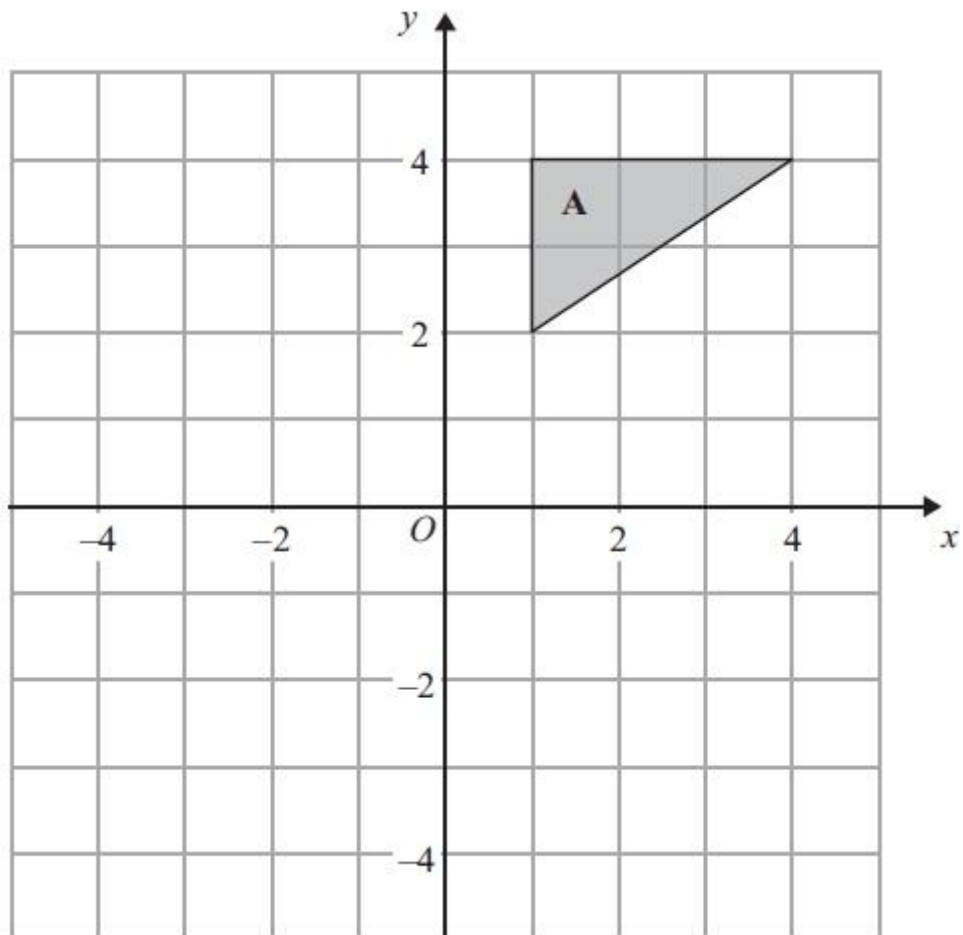


- (a) Translate shape **A** by the vector $\begin{pmatrix} -3 \\ 2 \end{pmatrix}$. (1)



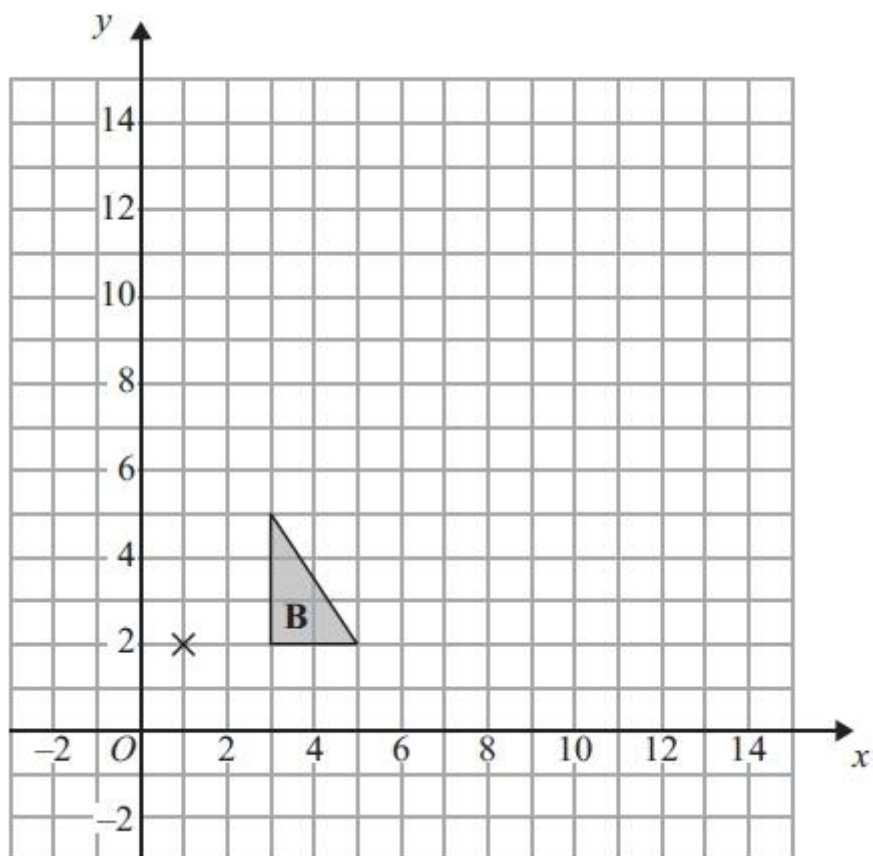
- (b) Describe fully the single transformation that maps shape **Q** onto shape **R**. (3)

Q10.



(a) Rotate triangle **A** 90° clockwise, centre O .

(2)



(b) Enlarge triangle **B** by scale factor 3, centre $(1, 2)$.

(3)

Q11.

Ewen has 48 white tiles and 16 blue tiles.

(a) Write down the ratio of the number of white tiles to the number of blue tiles.
Give your ratio in its simplest form.

..... (2)

The cost of each white tile was £2
The cost of each blue tile was £4

(b) Work out the ratio of the total cost of the white tiles to the total cost of the blue tiles.

..... (2)

Q12.

*140 children will be at a school sports day.
Lily is going to give a cup of orange drink to each of the 140 children.
She is going to put 200 millilitres of orange drink in each cup.

The orange drink is made from orange squash and water.
The orange squash and water are mixed in the ratio 1 : 9 by volume.

Orange squash is sold in bottles containing 750 millilitres.

Work out how many bottles of orange squash Lily needs to buy.
You must show all your working.

(Total for Question is 4 marks)

Q13.

Mrs Jennings shares £770 between her two sons, Pete and Tim.
She shares the money in the ratio of her sons' ages.

The combined age of her two sons is 66 years.
Pete is 6 years younger than Tim.

Work out how much money each son gets.
You must show all your working.

Pete £

Tim £ (5)

Q14.

Build-a-mix makes concrete.

1 cubic metre of concrete has a weight of 2400 kg.

15% of the concrete is water.

The rest of the ingredients of concrete are cement, sand and stone.

The weights of these ingredients are in the ratio 1 : 2 : 5

(a) Work out the weight of cement, of sand and of stone in 1 cubic metre of concrete.

cement = kg

sand = kg

stone = kg

(4)

Build-a-mix needs to make 30 cubic metres of concrete.

Build-a-mix has only got 6.5 tonnes of cement.

* (b) Will this be enough cement for Build-a-mix to make 30 cubic metres of concrete?

You must show all of your working.

(3)

Q15.

Here are the ingredients needed to make 16 chocolate biscuits.

Chocolate biscuits	
Makes 16 chocolate biscuits	
100 g	of butter
50 g	of caster sugar
120 g	of flour
15 g	of cocoa

Sabrina has 250 g of butter
300 g of caster sugar
600 g of flour
and 60 g of cocoa

Work out the greatest number of chocolate biscuits Sabrina can make.

You must show your working.

..... (3)

Q16.

Here is a list of ingredients for making a peach dessert for **6** people.

Peach dessert for 6 people.	
150 g	jelly
10	sponge fingers
500 ml	custard
200 g	peaches

Bob is going to make a peach dessert for **15** people.

Work out the amount of each ingredient he needs.

..... g jelly
..... sponge fingers
..... m/ custard
..... g peaches

(Total for Question is 3 marks)