



GCSE Foundation/Higher 17

Shape, space and measure



Questions



21 minutes

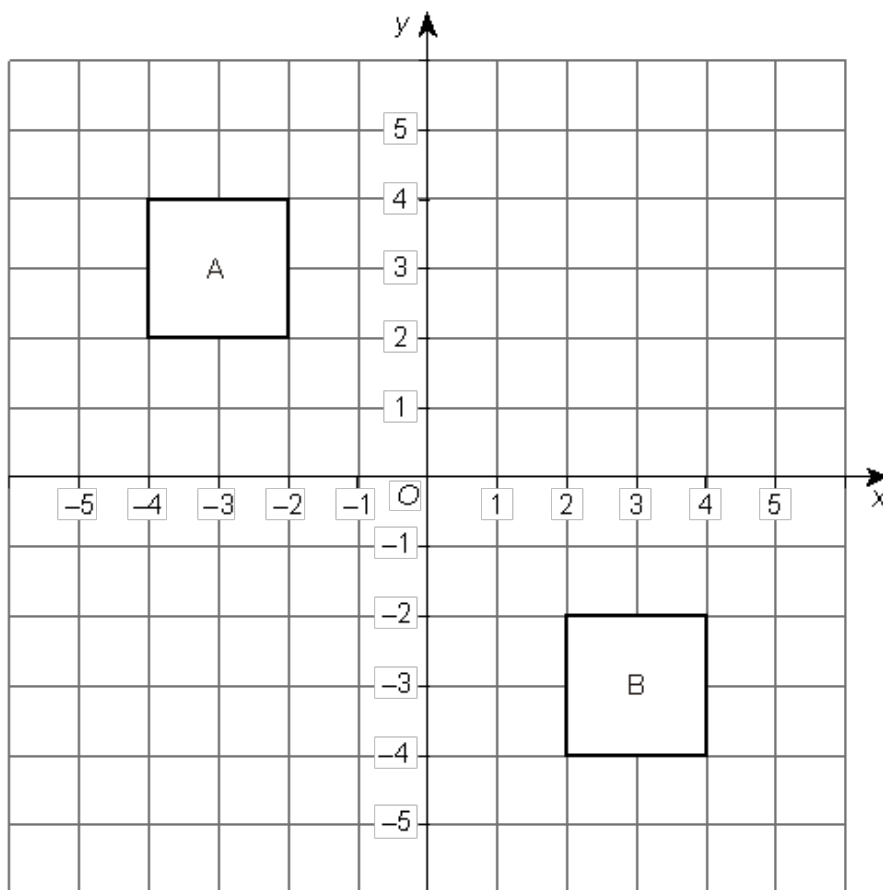


20 marks

Transformations

Q1. Square A can be transformed onto Square B by

- (a) a translation
or (b) a reflection
or (c) a rotation.



Describe each of these transformations **fully**.

(a) Square B is a translation of Square A by.....

.....

(1)

(b) Square B is a reflection of Square A in.....

.....

(1)

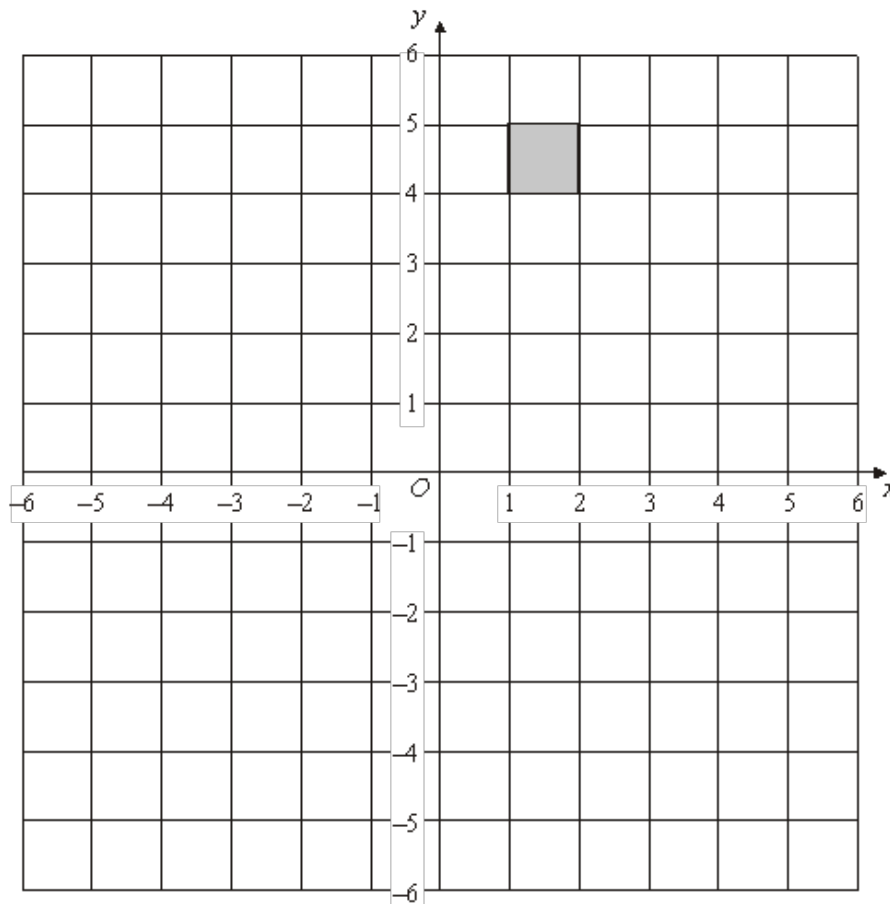
(c) Square B is a rotation of Square A of.....

.....

(2)

(Total 4 marks)

Q2. The diagram shows a shaded flag.



- (a) Rotate the shaded flag 90° anticlockwise about the origin.
Label this new flag with the letter *A*.
- (b) Translate the original shaded flag 2 units to the right and 3 units down.
Label this new flag with the letter *B*.
- (c) Reflect the original shaded flag in the line $y = 1$.
Label this new flag with the letter *C*.

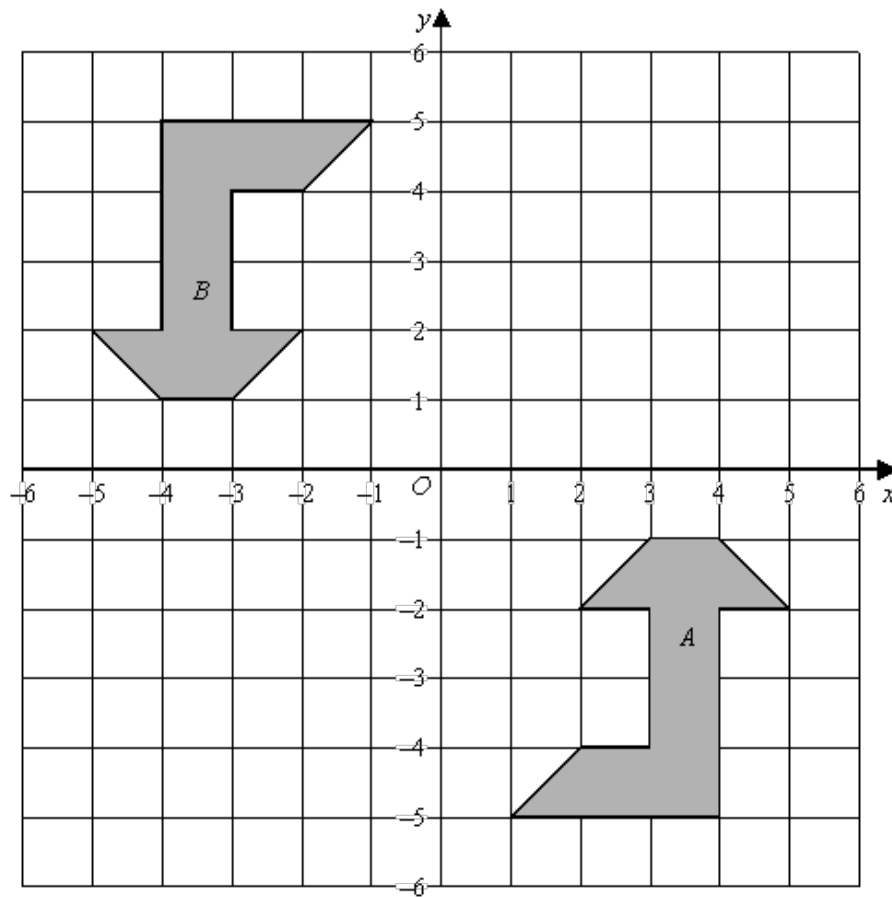
(3)

(1)

(2)

(Total 6 marks)

Q3. The diagram shows two identical shapes, *A* and *B*.



Describe fully the **single** transformation which takes shape *A* to shape *B*.

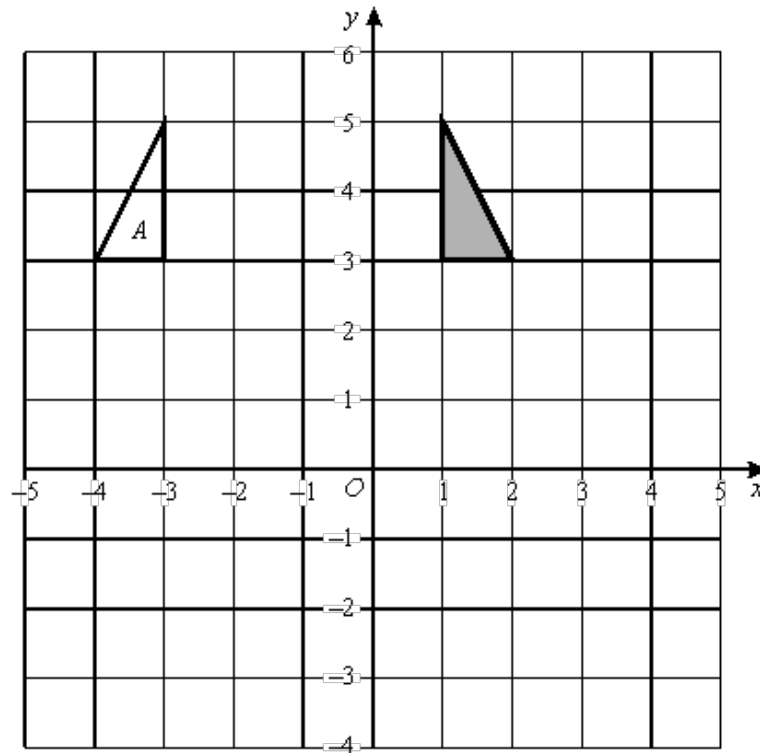
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(Total 3 marks)

Q4. (a)



- (i) Describe fully the **single** transformation that takes the shaded triangle to triangle A.

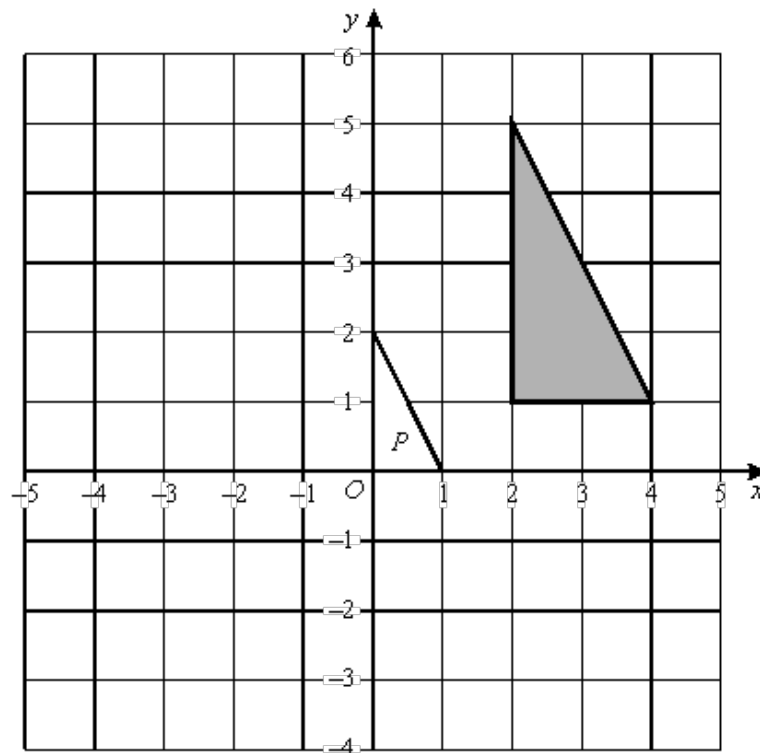
.....
.....

(2)

- (ii) On the grid above translate the **shaded** triangle by 2 squares to the right and 4 squares down.

(1)

- (b) Triangle P is an enlargement of the shaded triangle.



- (i) What is the scale factor of the enlargement?

Answer

(1)

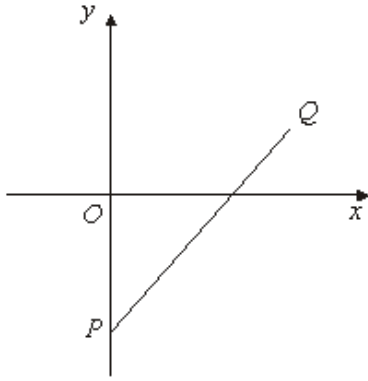
- (ii) What is the centre of enlargement?

Answer (.....,)

(1)

(Total 5 marks)

Q5. The diagram shows the points $P(0, -4)$ and $Q(5, 2)$.



Find the coordinates of the mid-point of the line segment PQ .

.....

.....

.....

Answer (..... ,)

(Total 2 marks)

