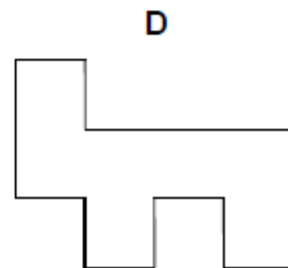
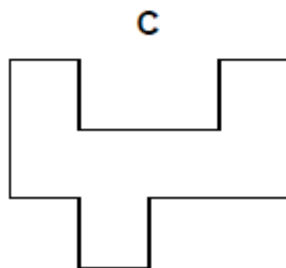
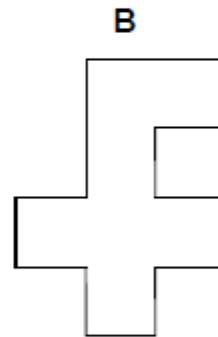
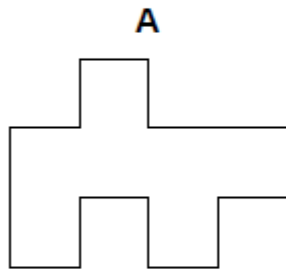
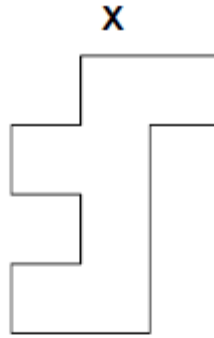


Q1.

Which shape is congruent to shape **X**?

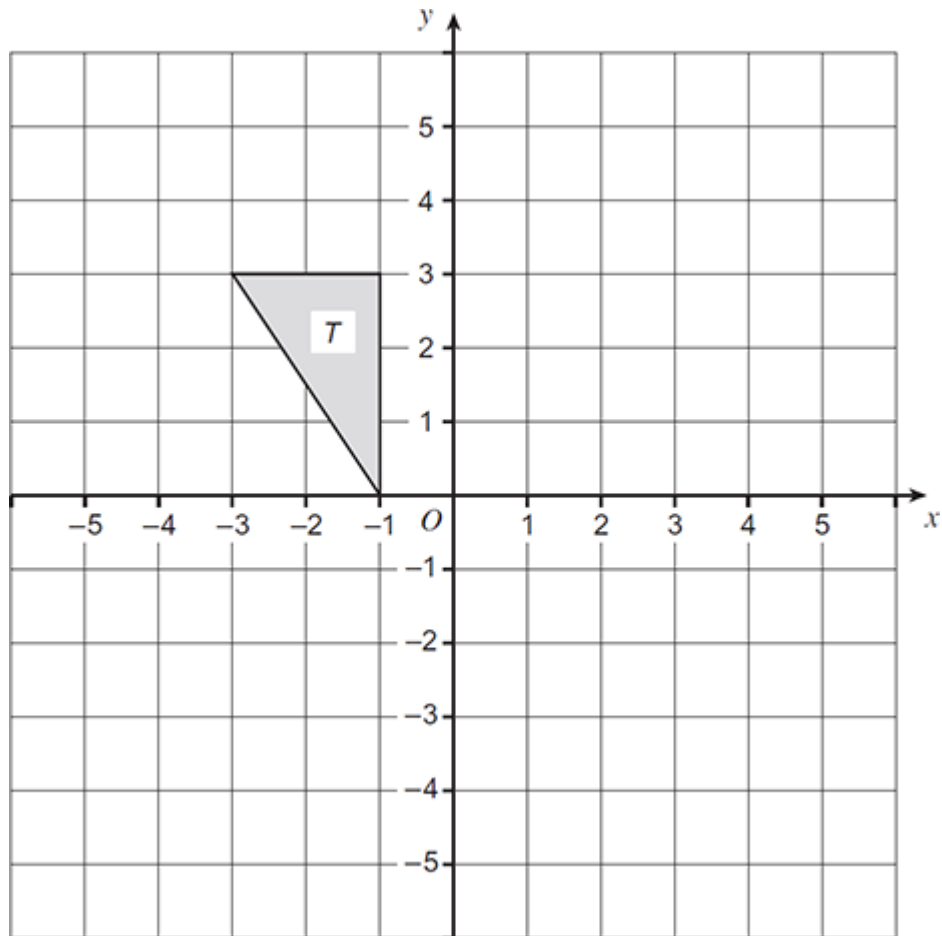
Circle your letter.



(Total 1 mark)

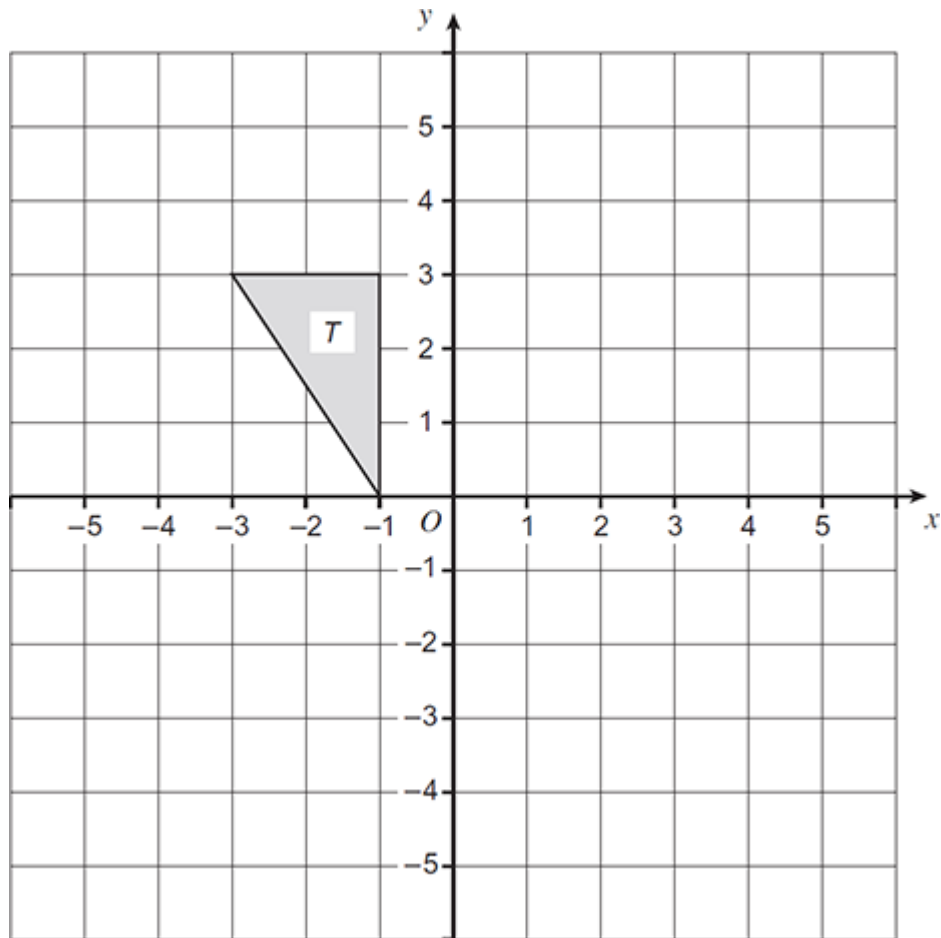
Q2.

(a) Translate triangle *T* by the vector $\begin{pmatrix} 4 \\ -5 \end{pmatrix}$



(2)

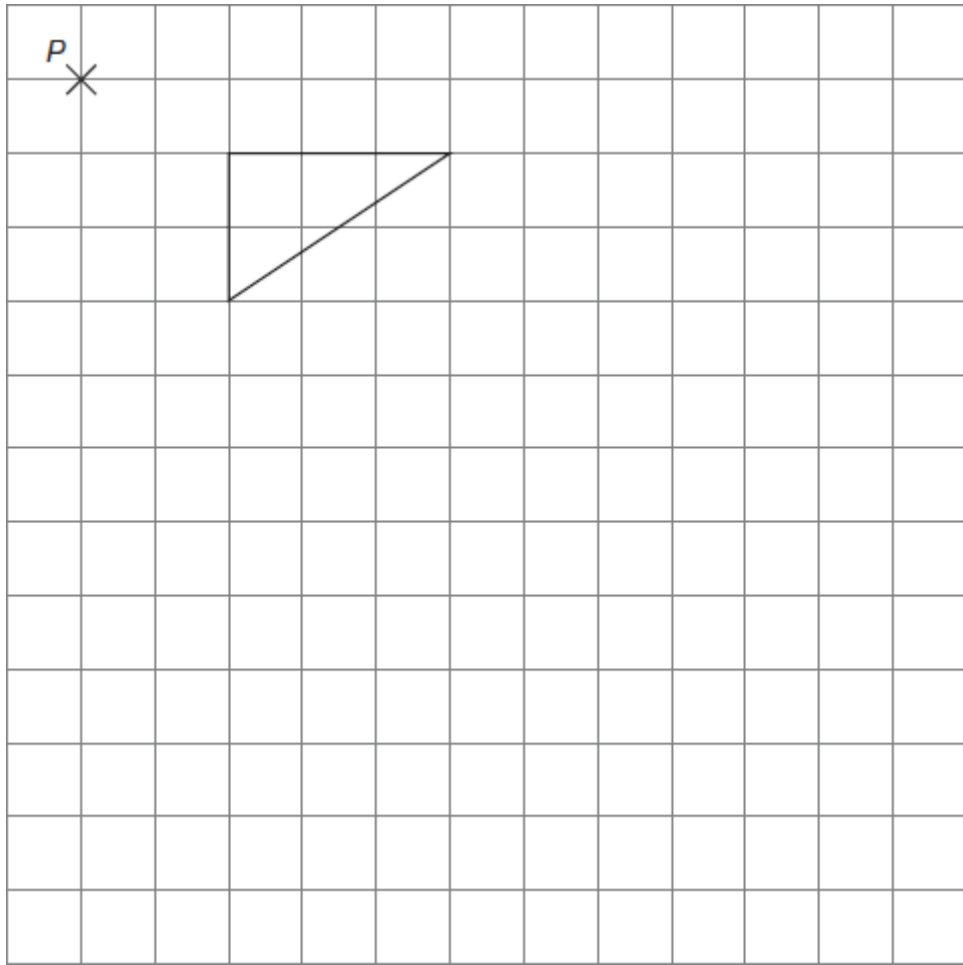
- (b) Reflect triangle T in the line $y = -1$



(2)
(Total 4 marks)

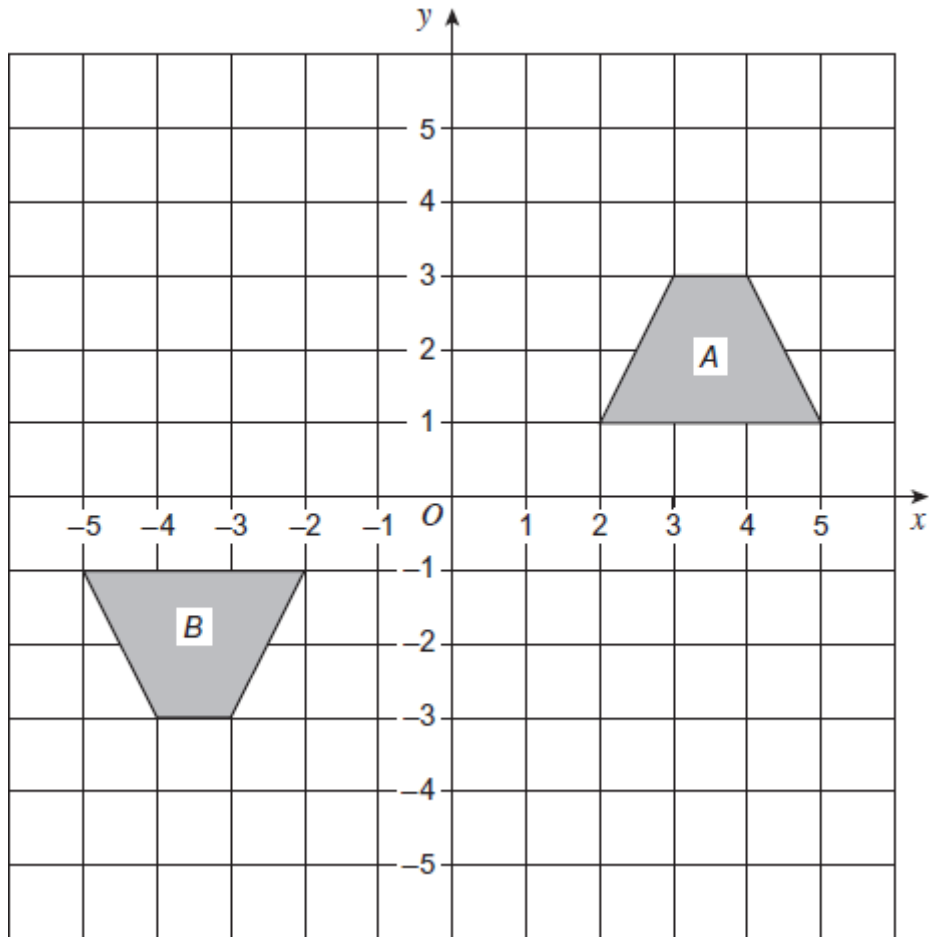
Q3.

- (a) Enlarge this shape by scale factor 2 with centre of enlargement point P .



(3)

- (b) Describe fully the **single** transformation that maps shape *A* to shape *B*.



.....

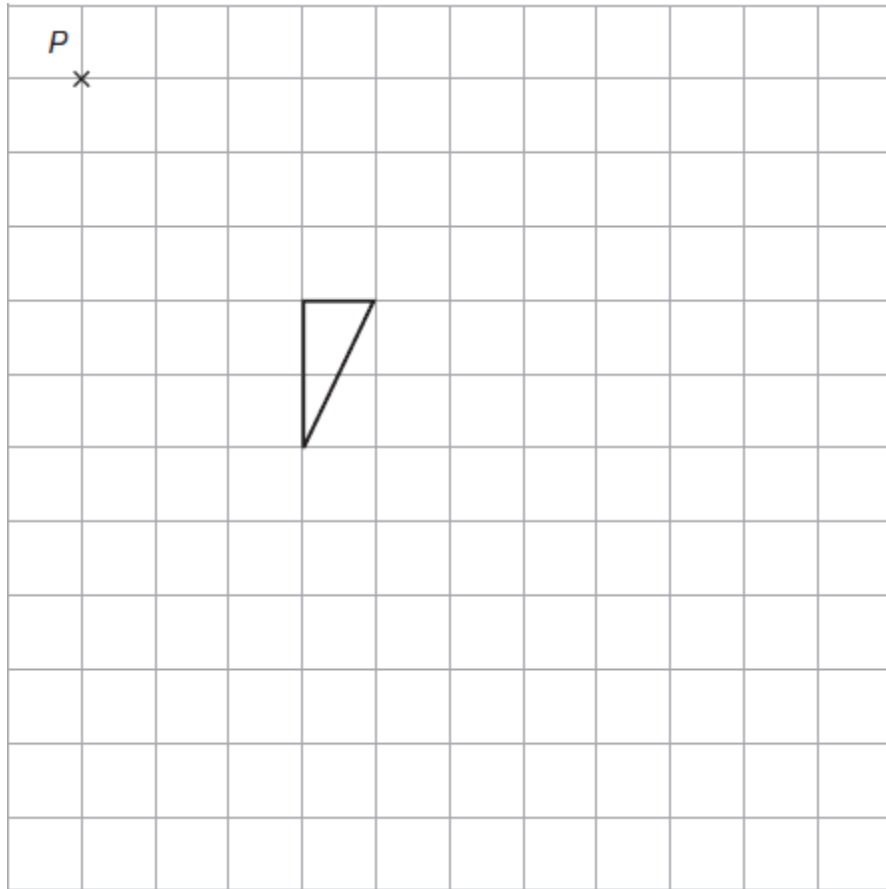
.....

.....

(3)
(Total 6 marks)

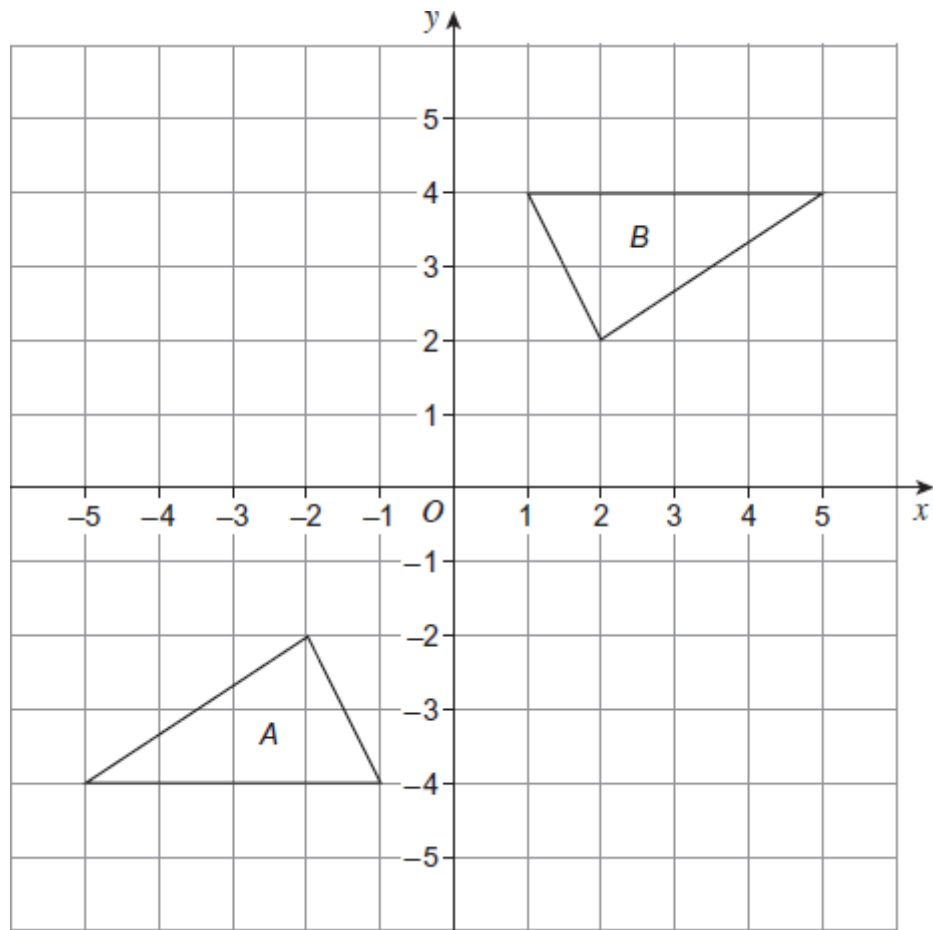
Q4.

- (a) Enlarge the triangle by scale factor 2, using point *P* as the centre of enlargement.



(3)

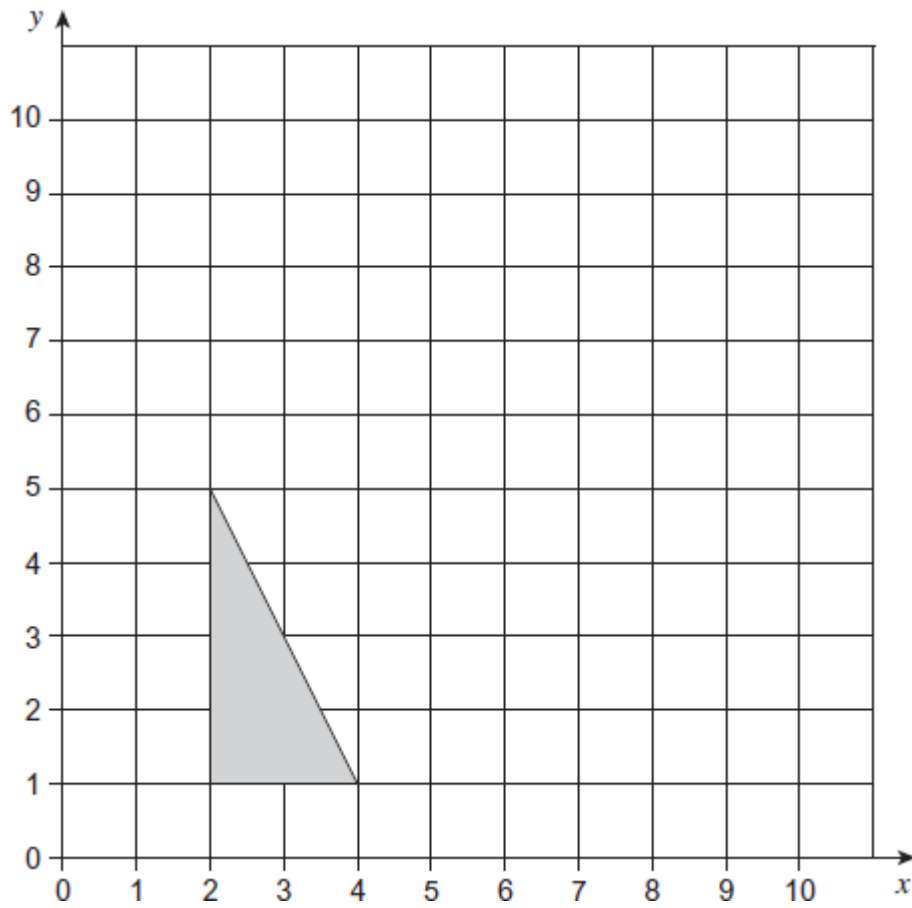
(b) Describe fully the **single** transformation that maps shape *A* onto shape *B*.



.....

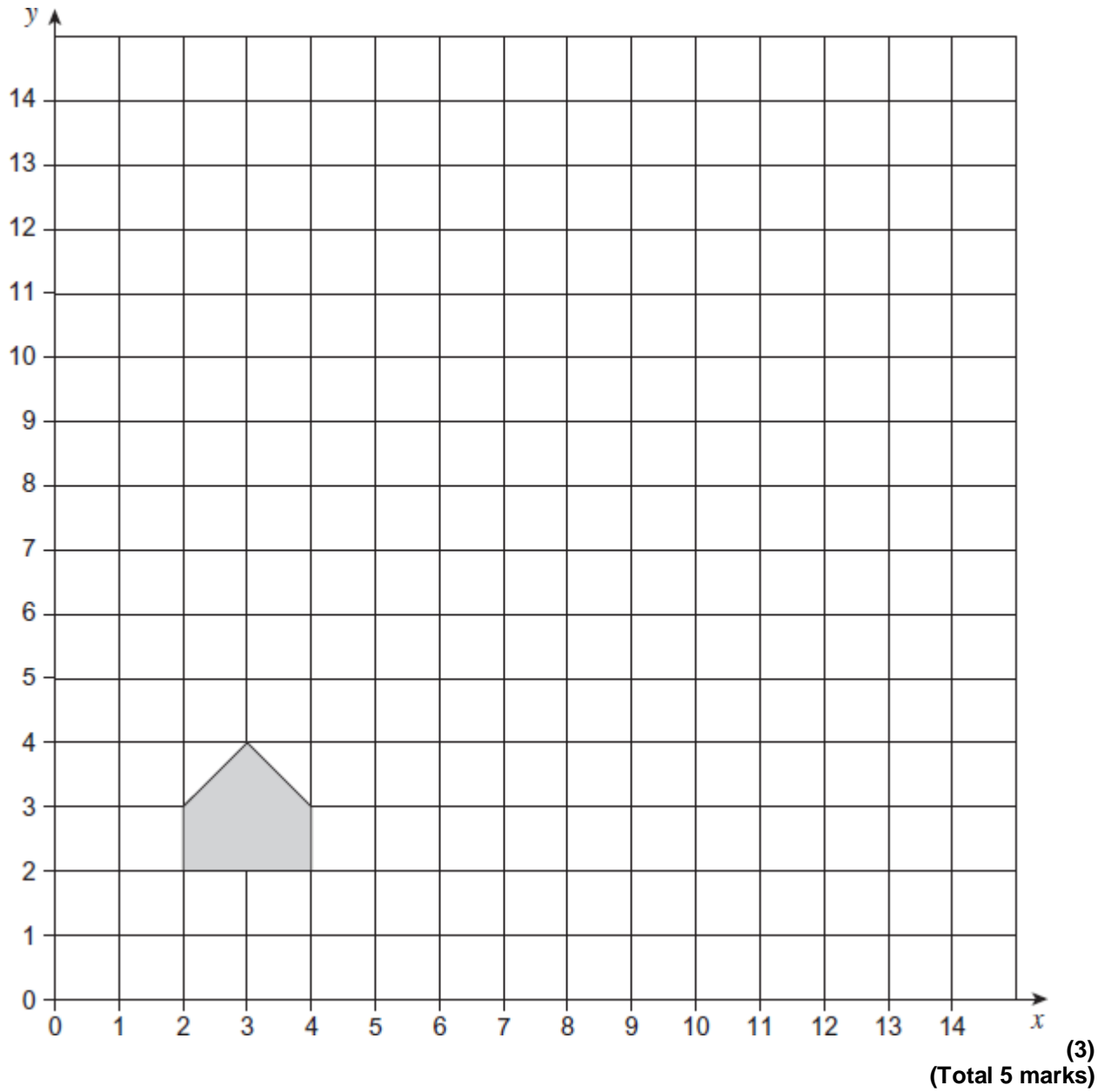
(3)
 (Total 6 marks)

Q5.(a) Reflect the triangle in the line $y = 5$

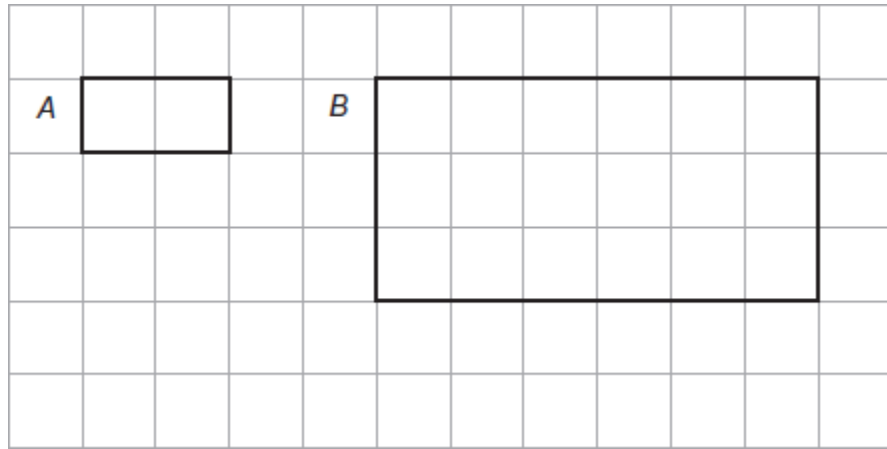


(2)

- (b) Enlarge the shape by scale factor 4, centre of enlargement (1, 1).



Q6. Rectangles *A* and *B* are drawn on a centimetre grid.



(a) *B* is an enlargement of *A*.

What is the scale factor of the enlargement?

.....

Answer

(1)

(b) How many times larger is the area of *B* than the area of *A*?

.....

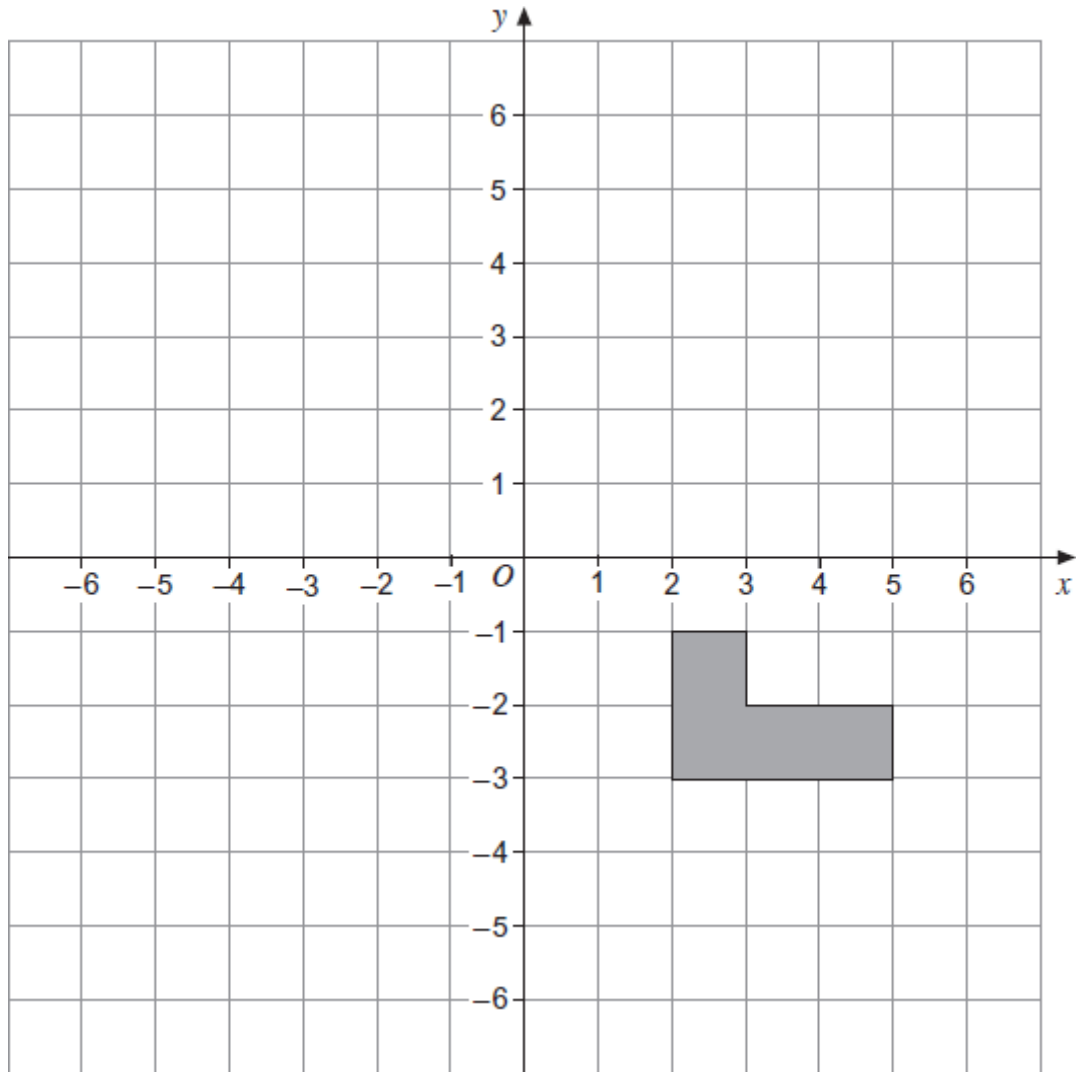
.....

.....

(2)
(Total 3 marks)

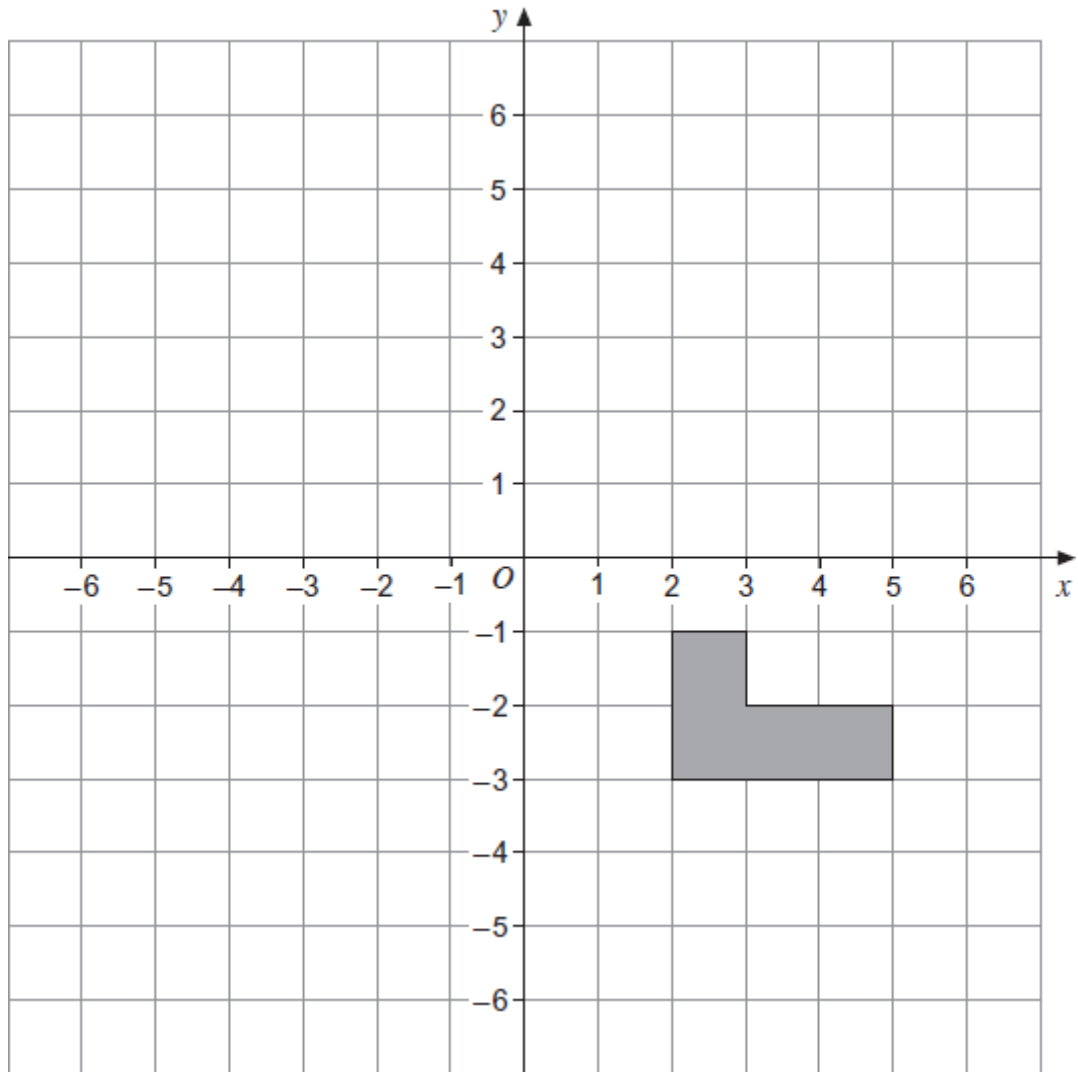
Q7.

(a) Reflect the shape in the line $x = 2$



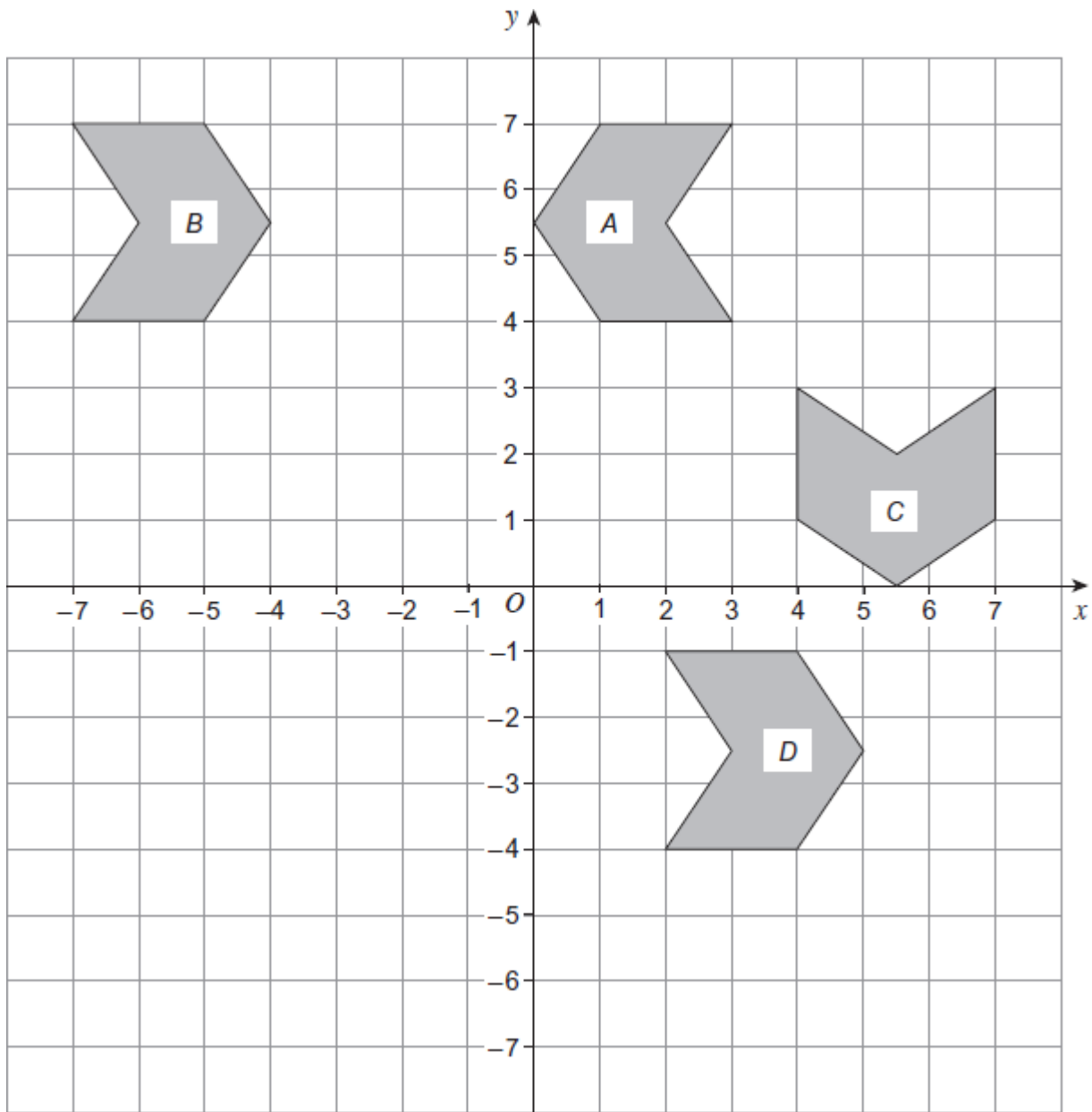
(2)

- (b) Translate the shape by the vector $\begin{pmatrix} -5 \\ 6 \end{pmatrix}$.



(2)
(Total 4 marks)

Q8.



(a) On the grid draw the mirror line that reflects shape A to shape B.

(1)

(b) On the grid draw the mirror line that reflects shape A to shape C.

(1)

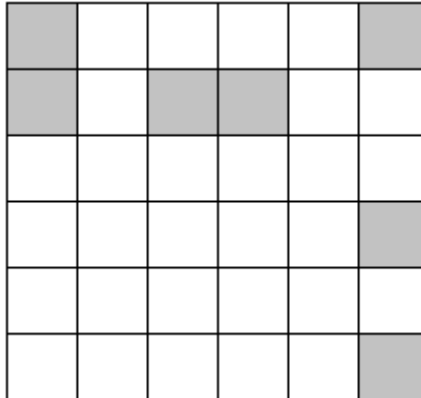
(c) Describe fully the single transformation that takes shape B to shape D.

.....

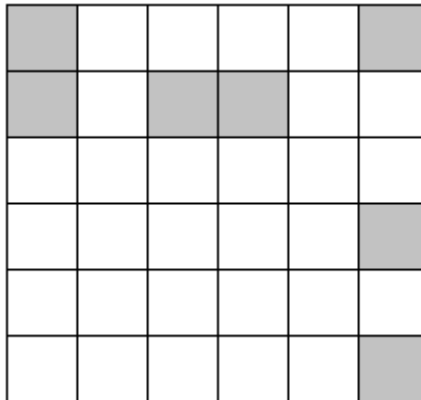
(2)
(Total 4 marks)

Q9. Shade 3 squares so this pattern has exactly **one** line of symmetry.

Use this grid for practice.

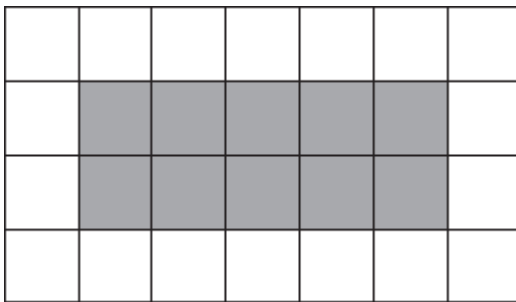


Use this grid for your answer.



(Total 2 marks)

Q10.(a) The diagram shows a rectangle on a centimetre grid.



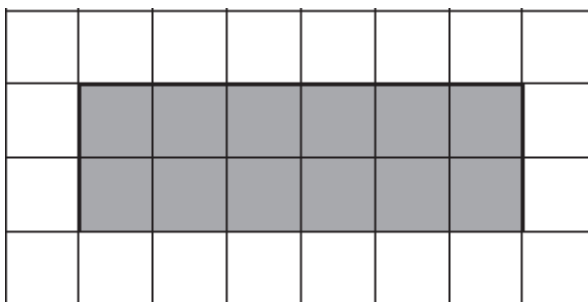
The **perimeter** of this rectangle is 14 cm

Why is it **not** possible to draw a square of perimeter 14 cm using whole squares on a centimetre grid?

.....

(1)

(b) Here is another rectangle on a centimetre grid.



The **area** of this rectangle is 12 cm²

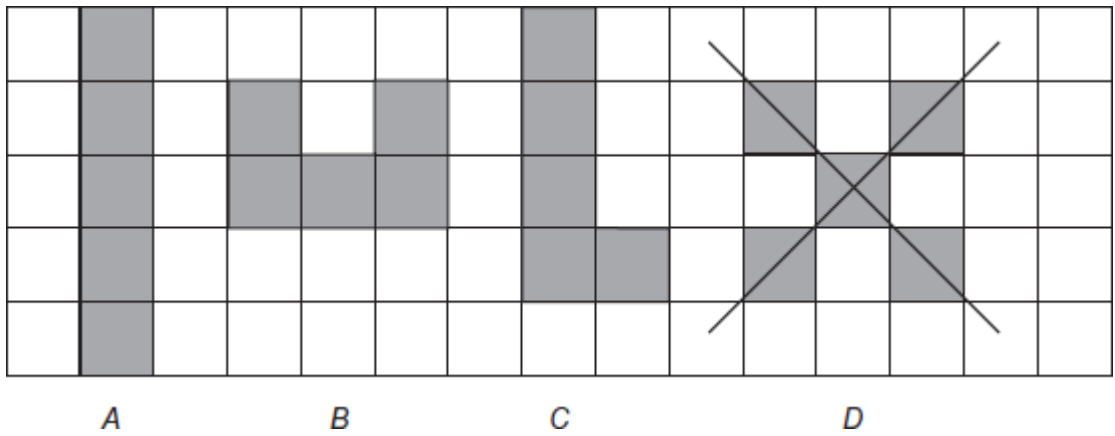
Why is it **not** possible to draw a square of area 12 cm² using whole squares on a centimetre grid?

.....

(1)

(c) A Pentomino is a shape that has five squares joined to each other. The squares cannot overlap or be joined corner to corner.

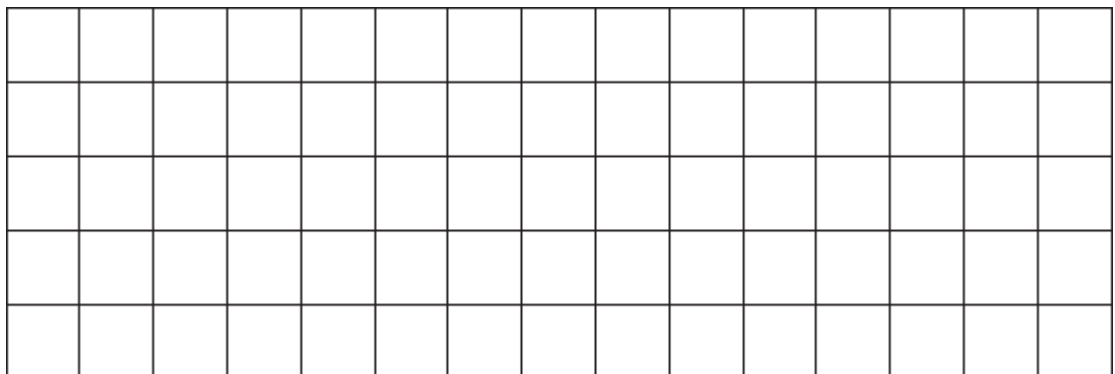
A, B and C are Pentominoes.
 D is **NOT** a Pentomino.



On this square grid, draw a different Pentomino that has
no lines of symmetry

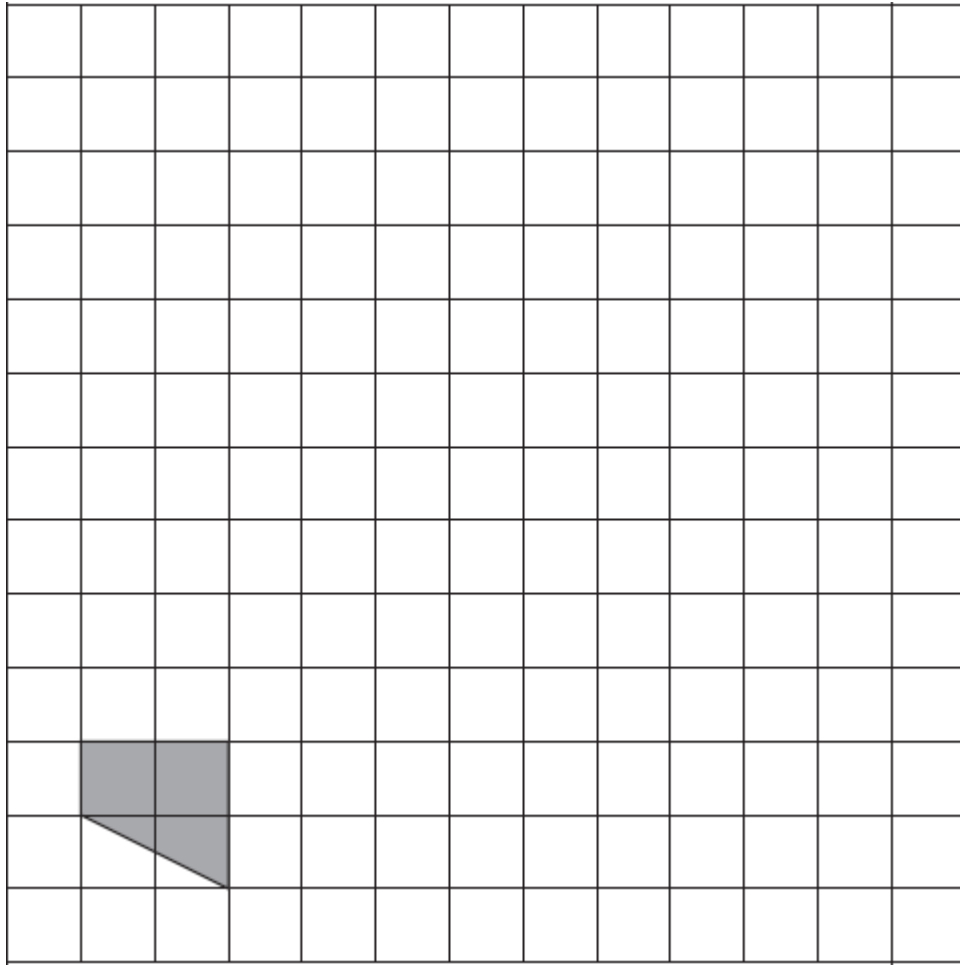
and

rotational symmetry of order 2



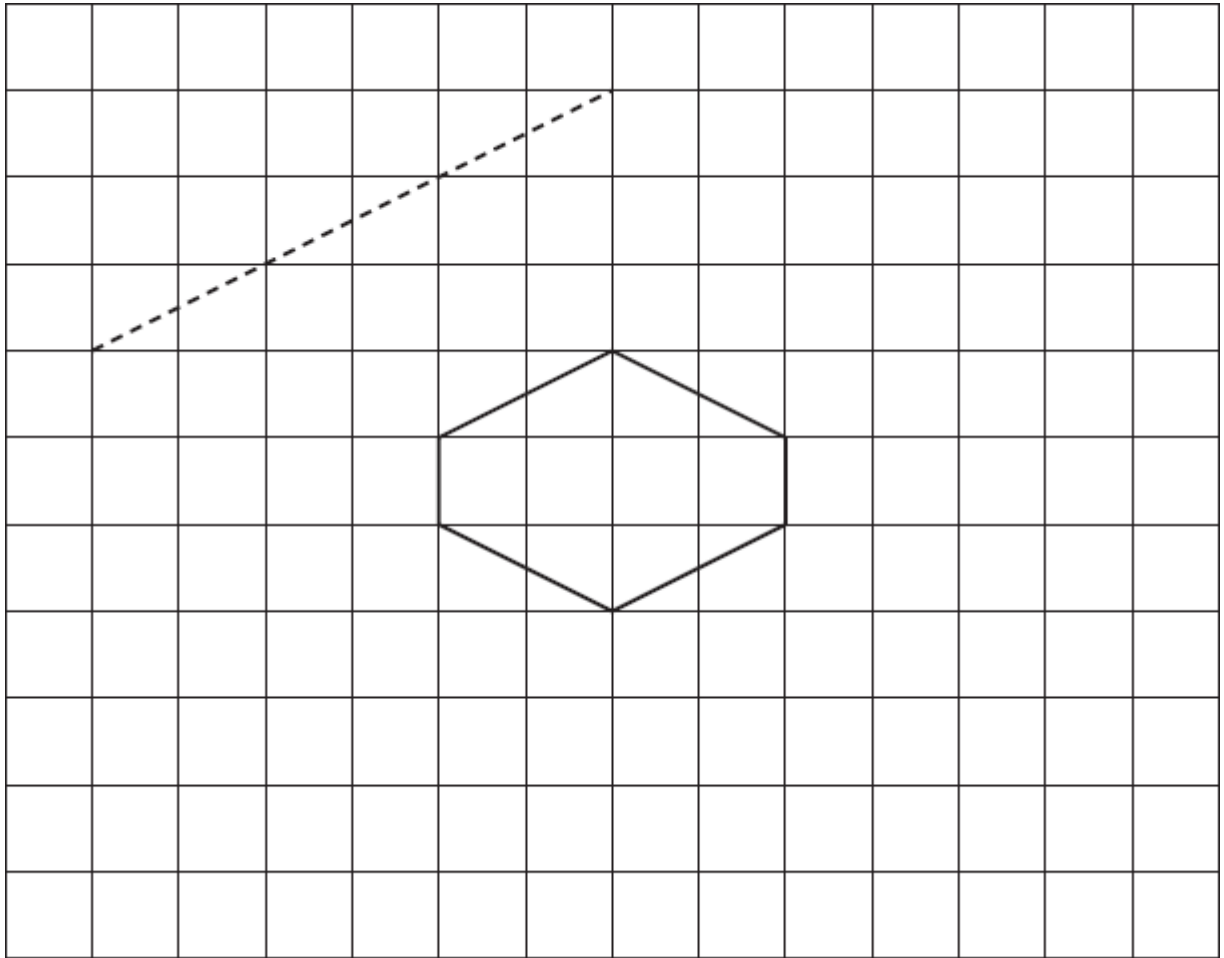
(2)
(Total 4 marks)

Q11. Enlarge the shape by scale factor 3



(Total 2 marks)

Q12. The dotted line is one side of an enlargement of the hexagon.



(a) Complete the enlarged hexagon.

(2)

(b) What is the scale factor of the enlargement?

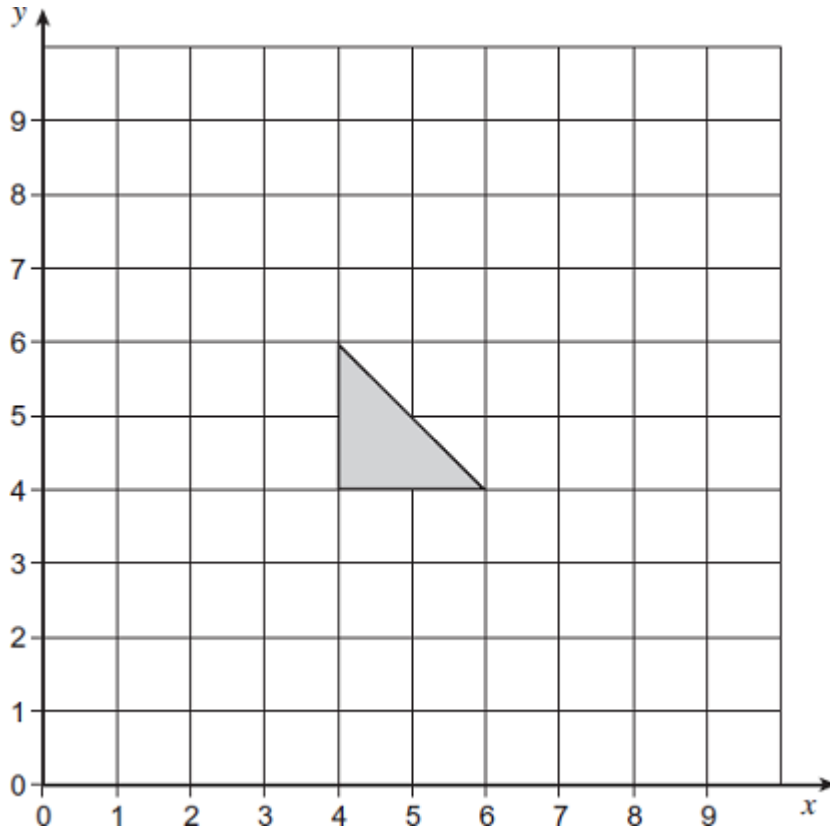
.....

Answer

(1)

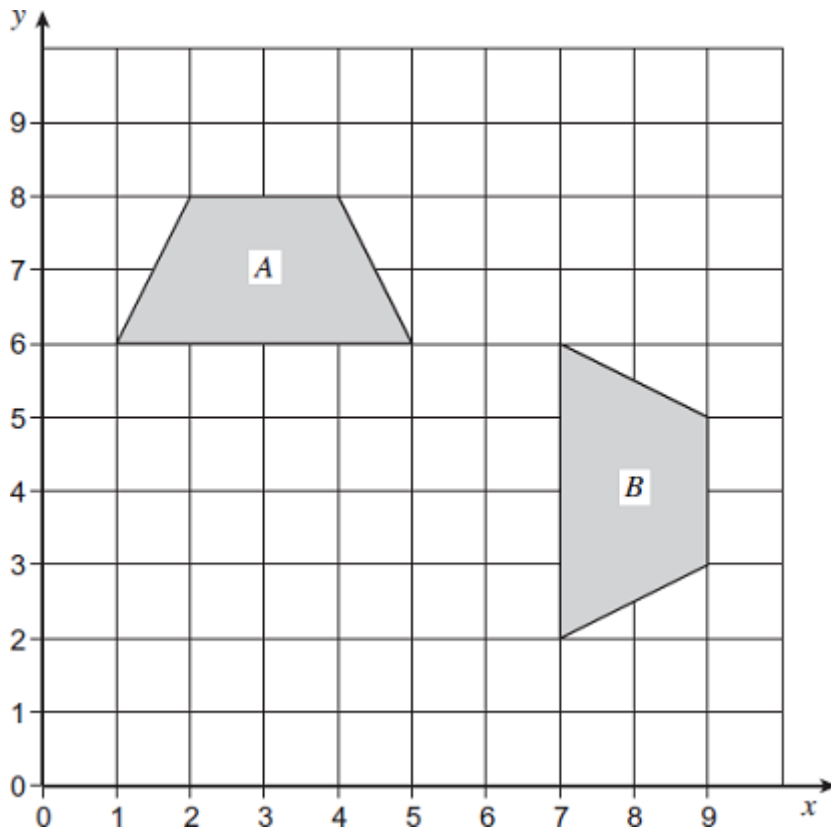
(Total 3 marks)

Q13.(a) Translate the shape by the vector $\begin{pmatrix} 2 \\ 3 \end{pmatrix}$



(2)

(b)



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

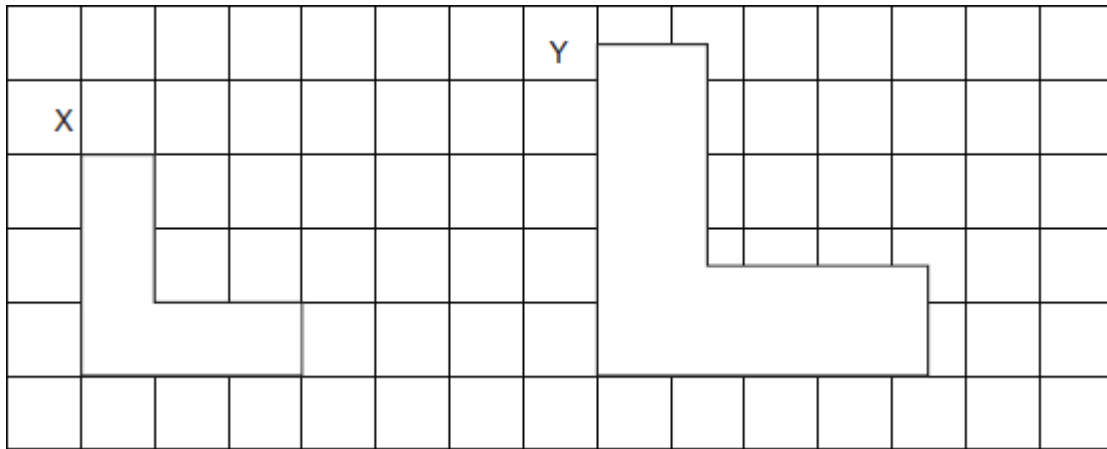
.....

.....

.....

(3)
(Total 5 marks)

Q14.



(a) Shape Y is an enlargement of shape X.

What is the scale factor of the enlargement?

Answer

(1)

(b) Shape X has a perimeter of 12 cm.

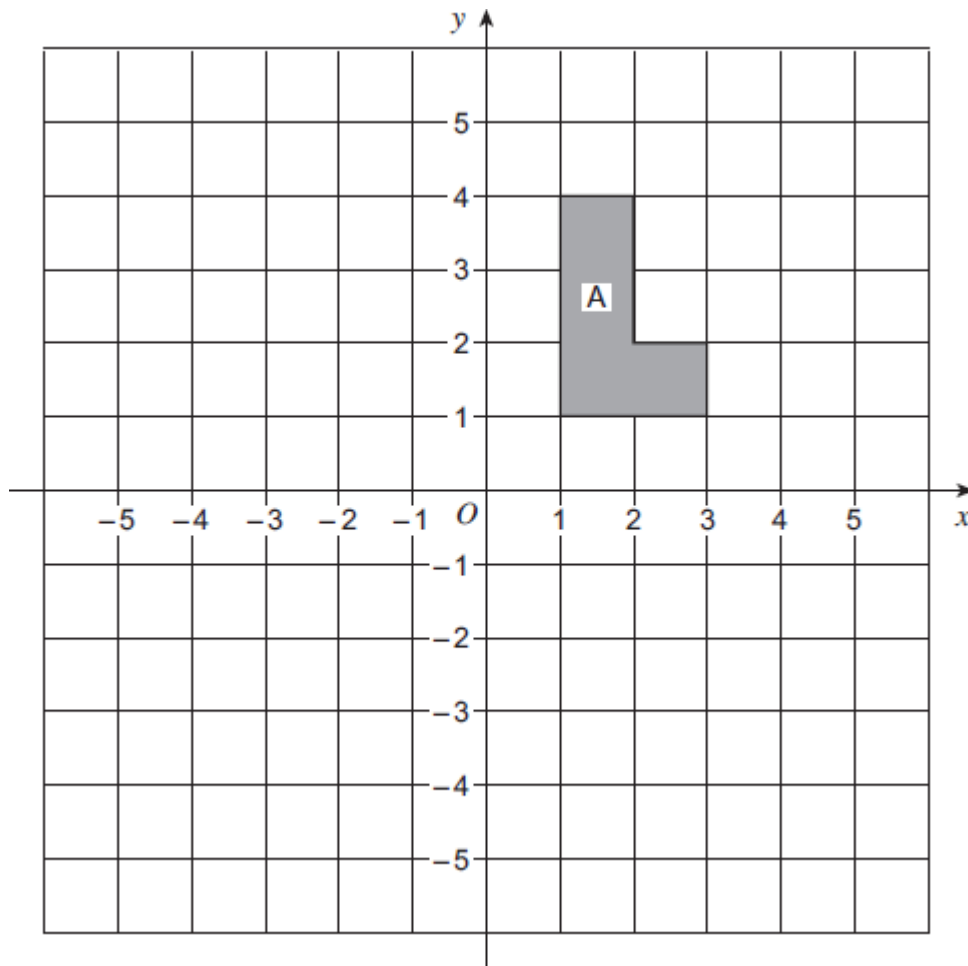
Work out the perimeter of shape Y.

Answer cm

(1)

(Total 2 marks)

Q15.



(a) Reflect shape A in the x -axis.
Label the new shape B.

(1)

(b) Reflect shape B in the y -axis.
Label the new shape C.

(1)

(c) Describe **fully** the rotation that maps shape C to shape A.

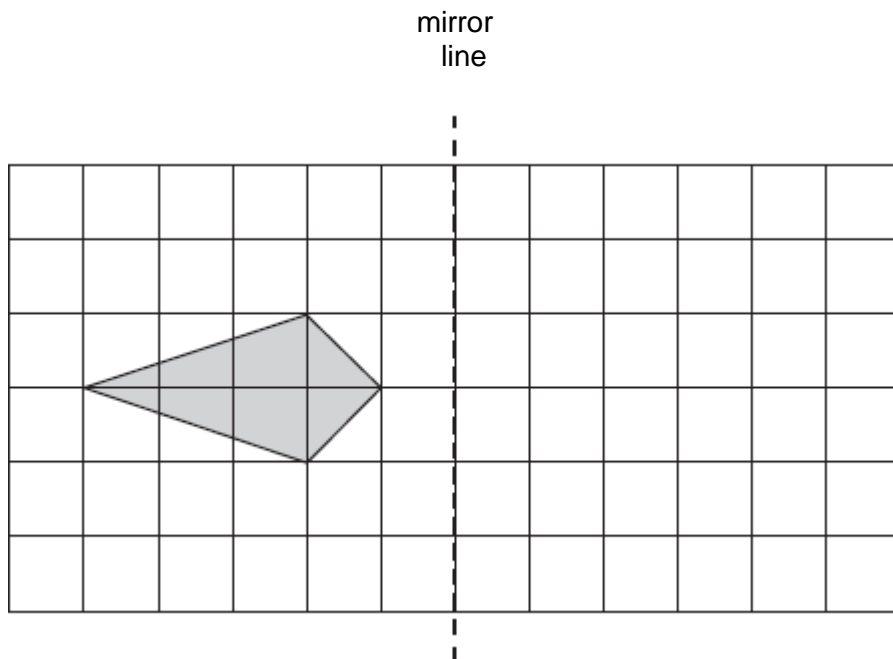
.....

.....

.....

(2)
(Total 4 marks)

Q16. Reflect the shape in the mirror line.



(Total 2 marks)