

Name: _____

Exam Style Questions

Enlargements



Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

Secondary

Video 104

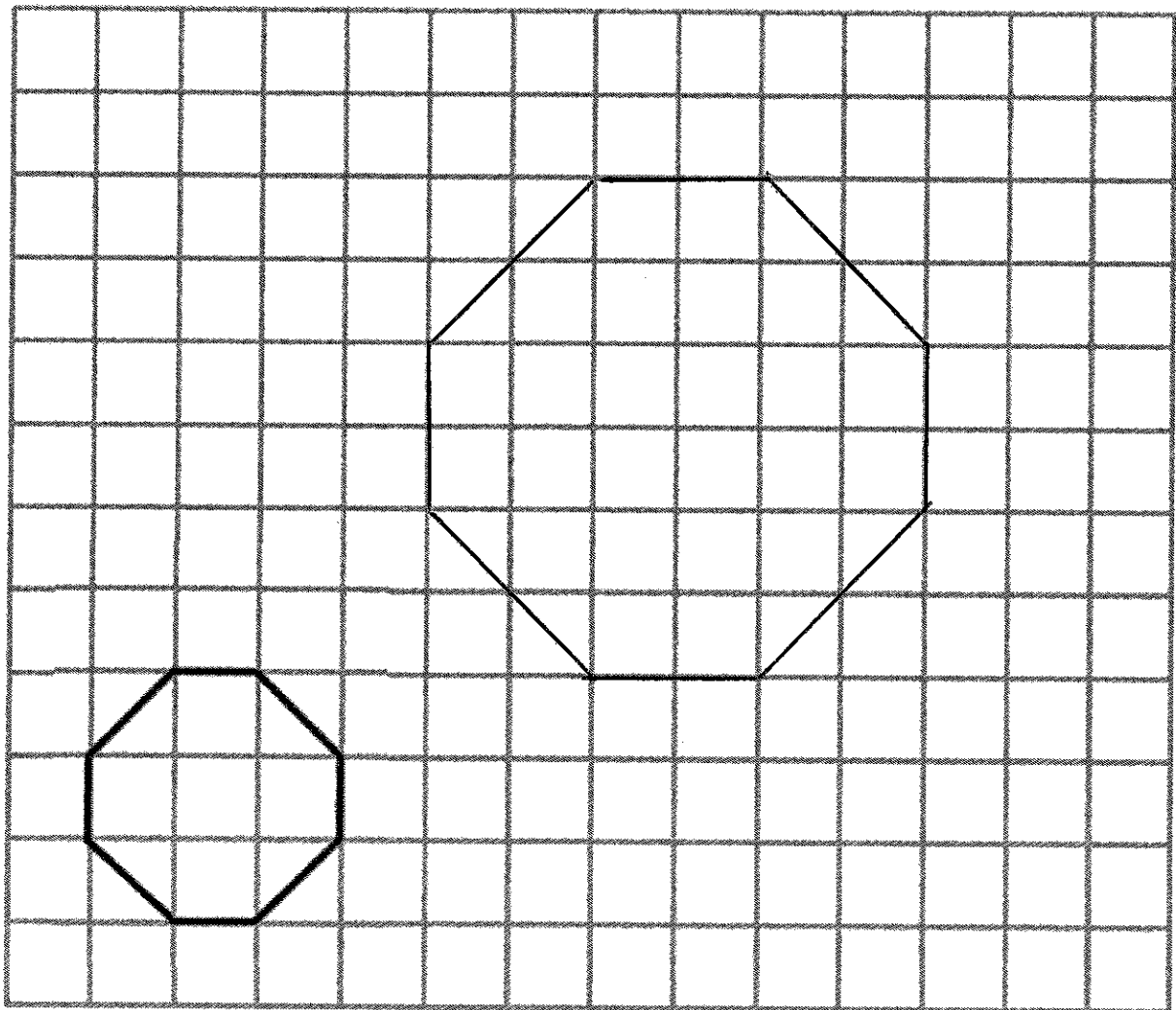
Video 105

Video 106

Video 107



1.



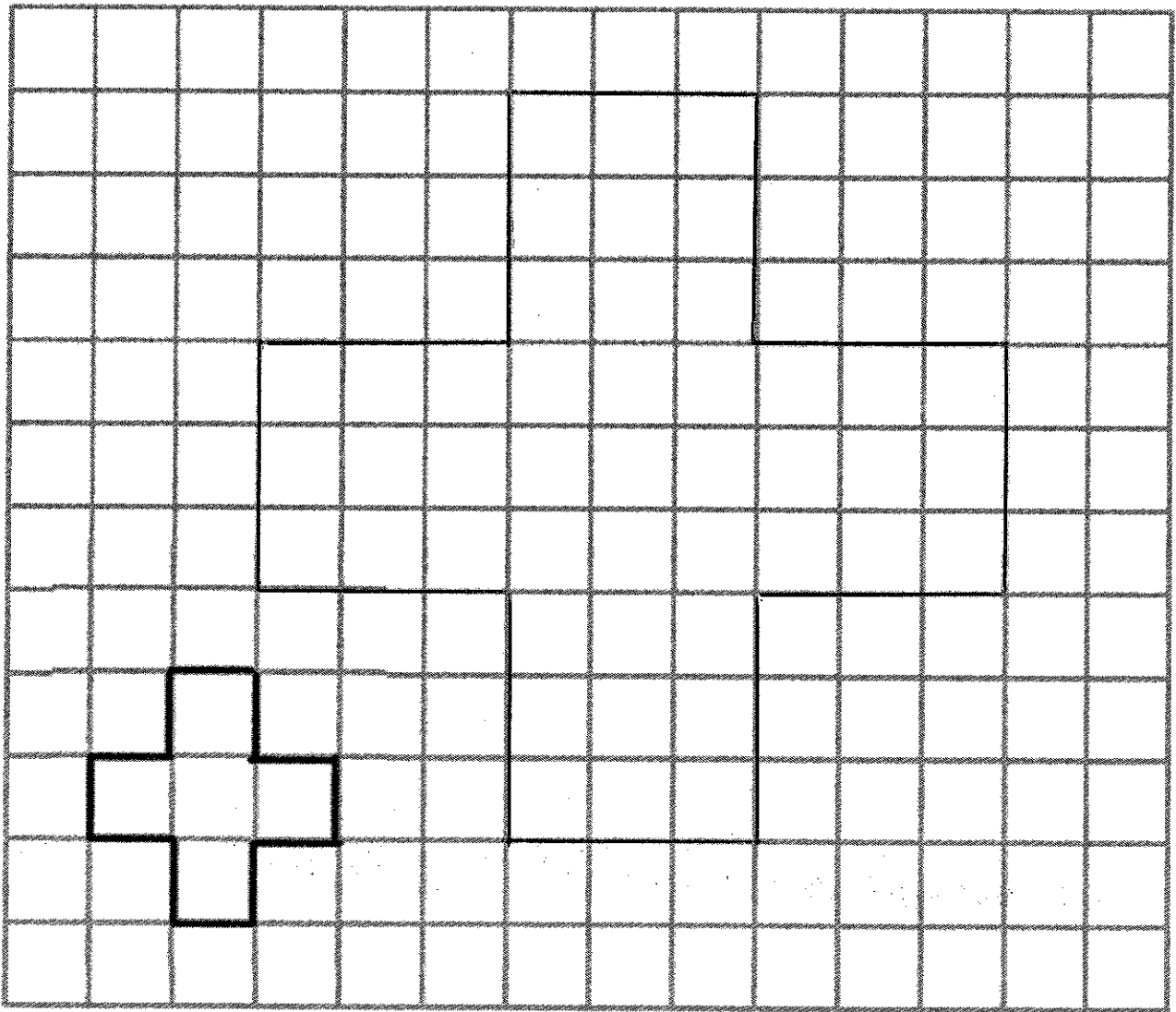
(a) Name the shape drawn on the grid.

Octagon
(1)

(b) On the grid, enlarge the shape using a scale factor of 2

(2)

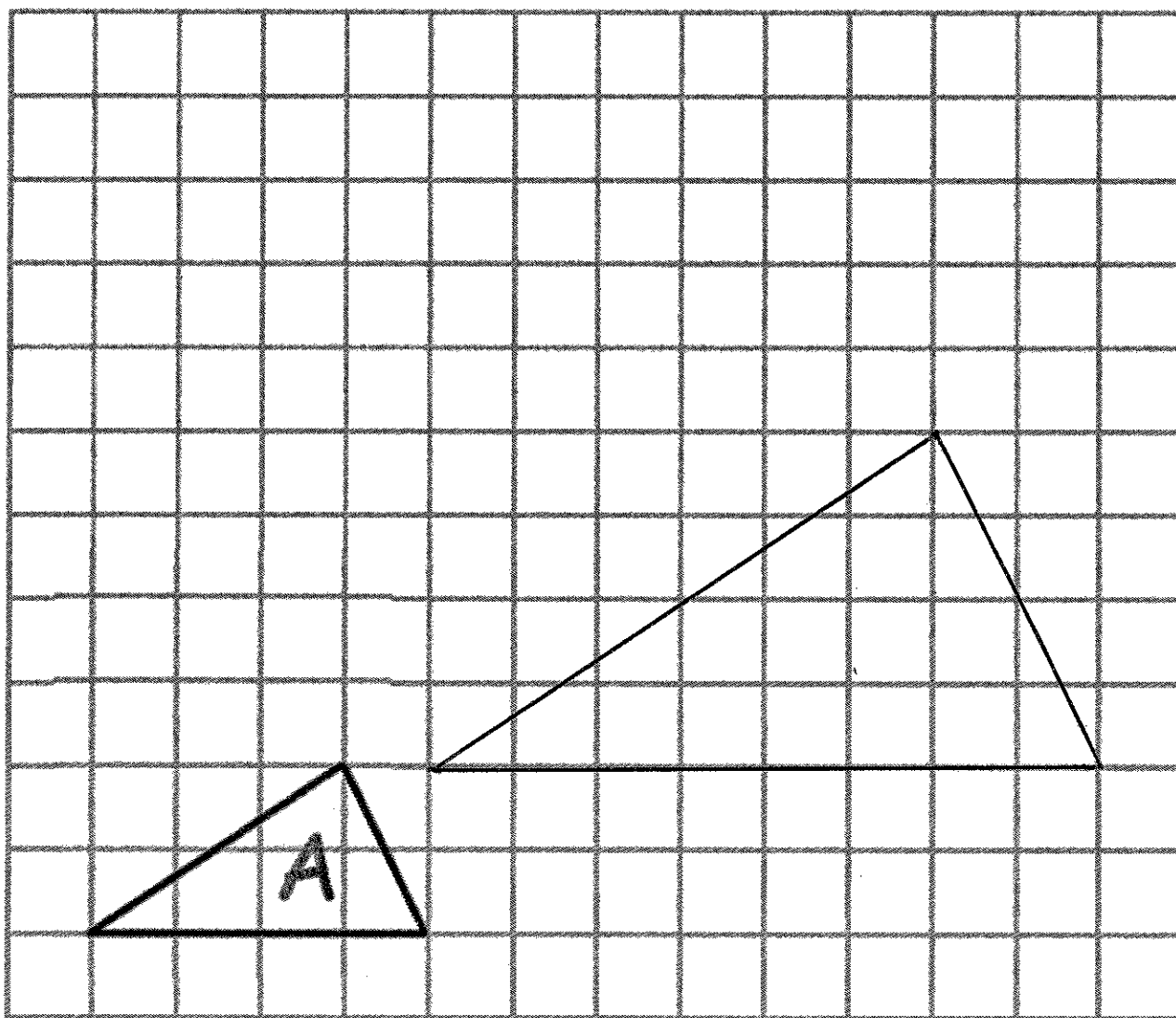
2.



On the grid, enlarge the shape using a scale factor of 3.

(2)

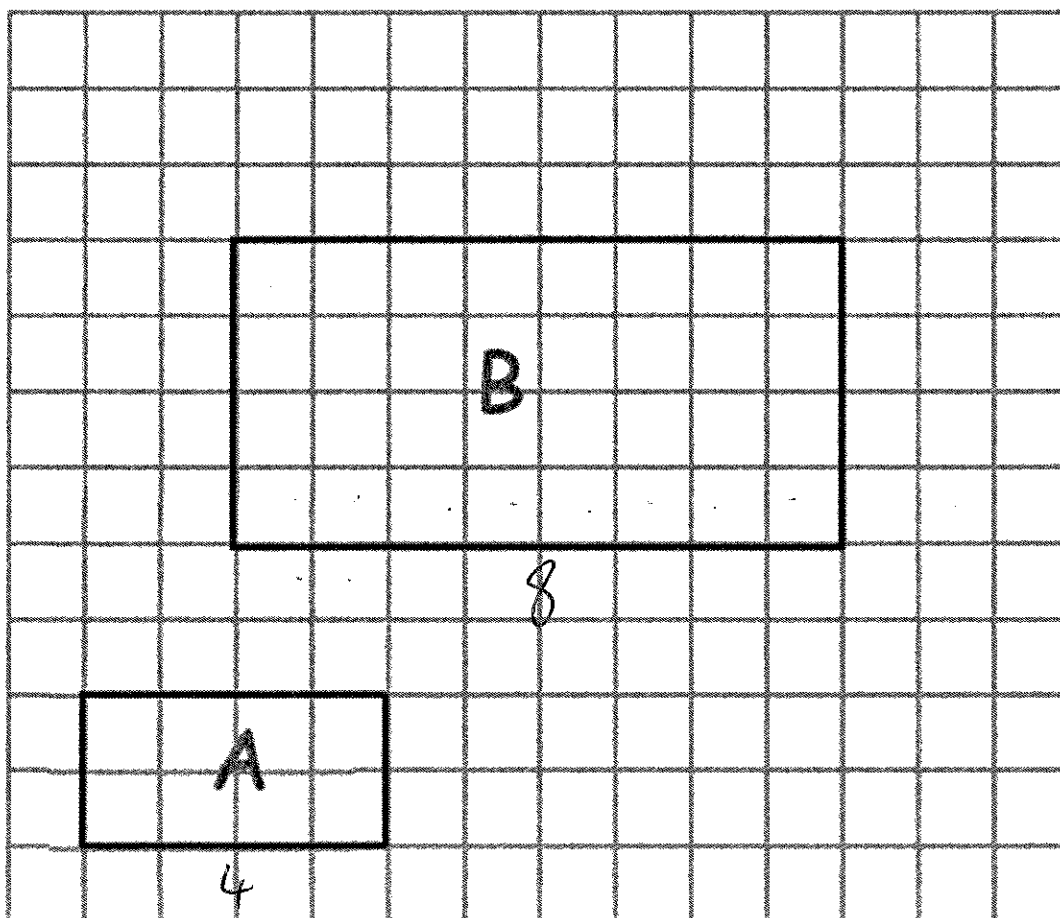
3.



On the grid, draw an enlargement of shape A with a scale factor of 2.

(2)

4. Two rectangles, A and B, are drawn on a centimetre grid.



- (a) Work out the area of rectangle A.

$$8 \times 4 = 32$$

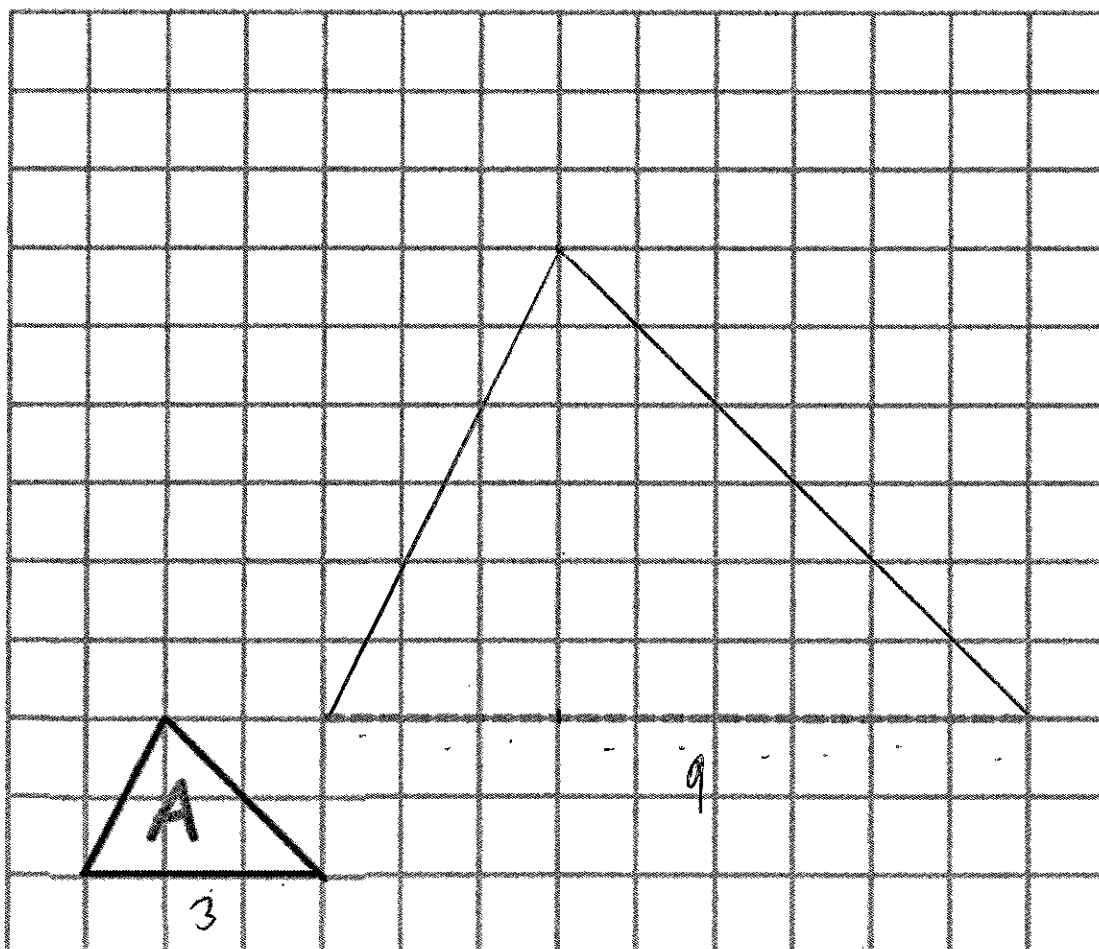
.....32.....cm²
(1)

Rectangle B is an enlargement of rectangle A.

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

.....2.....
(1)

5. The diagram shows a triangle.
The dotted line is a side of an enlargement of the triangle.



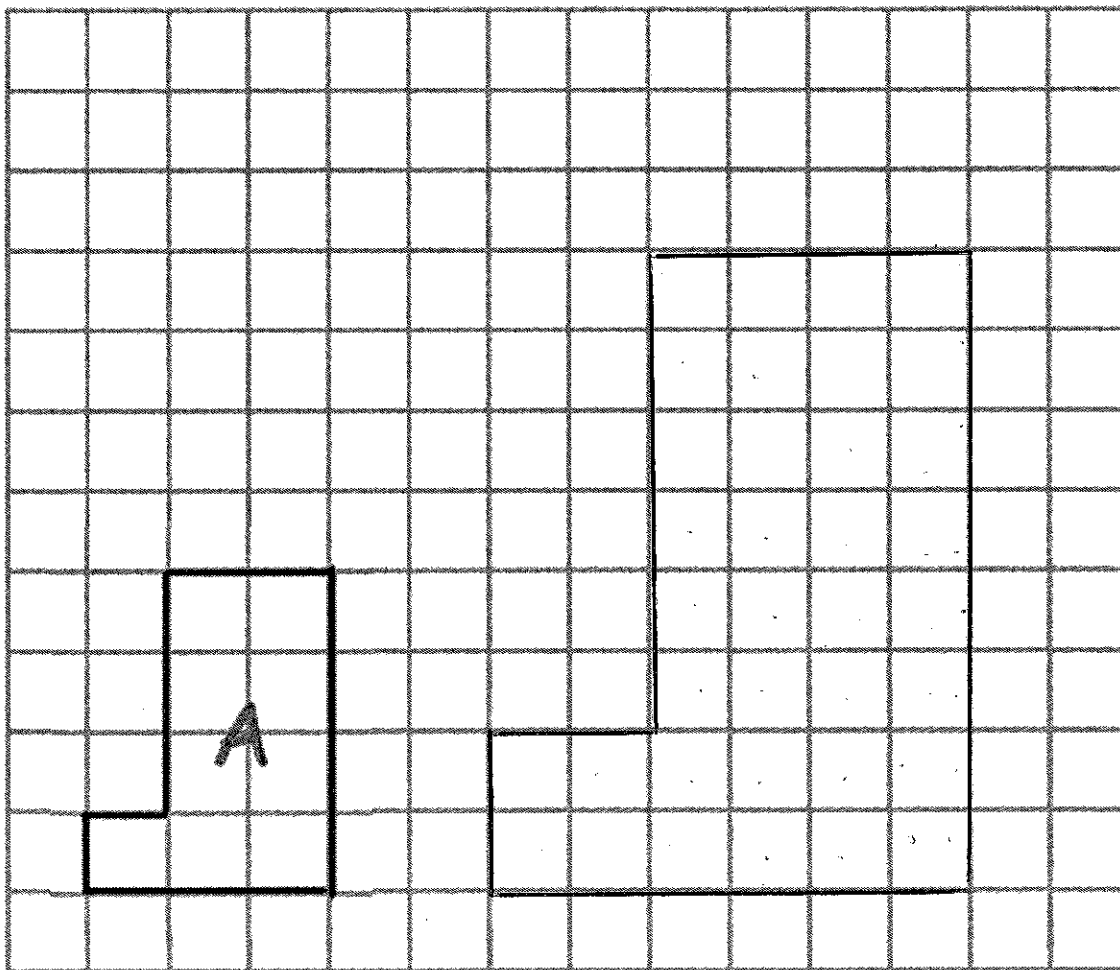
- (a) What is the scale factor of the enlargement?

3
.....
(1)

- (b) Complete the enlarged triangle.

(2)

6. Shown below is an L shape that has area 9cm^2 .



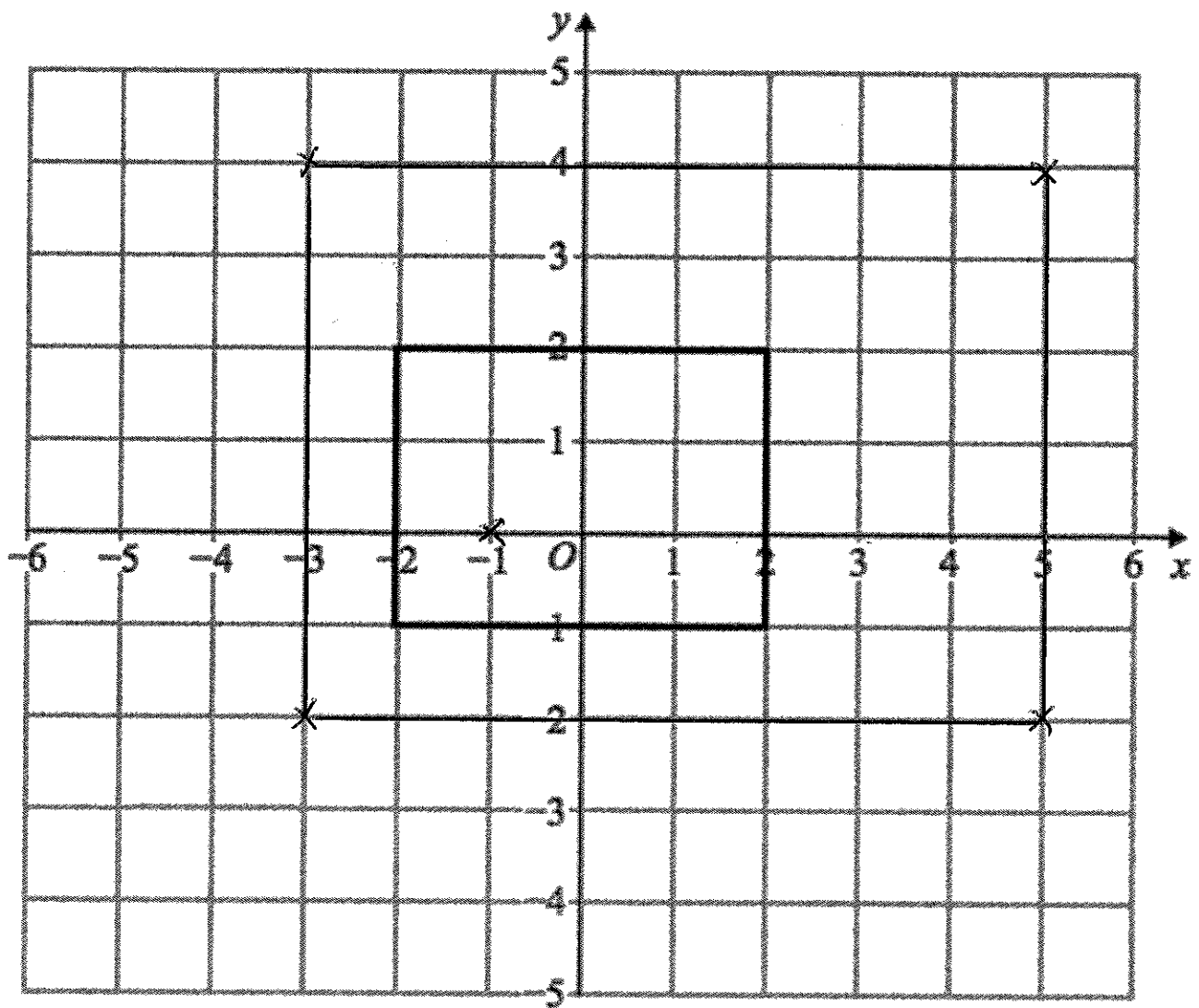
Work out the area of the L-shape after an enlargement of scale factor 2.

..... 36cm^2
(2)

A 10x10 grid is shown. A small square labeled 'A' is located in the bottom-left corner, with its bottom-left corner at (0, 0) and its top-right corner at (1, 1). A larger square is drawn in the center of the grid, with its bottom-left corner at (3, 3) and its top-right corner at (8, 8). The larger square has side length 5 units. The vertices of the larger square are marked with 'x' at (3, 3), (8, 3), (8, 8), and (3, 8). The midpoints of the sides of the larger square are also marked with 'x' at (5.5, 3), (3, 5.5), (8, 5.5), and (5.5, 8).

(3)

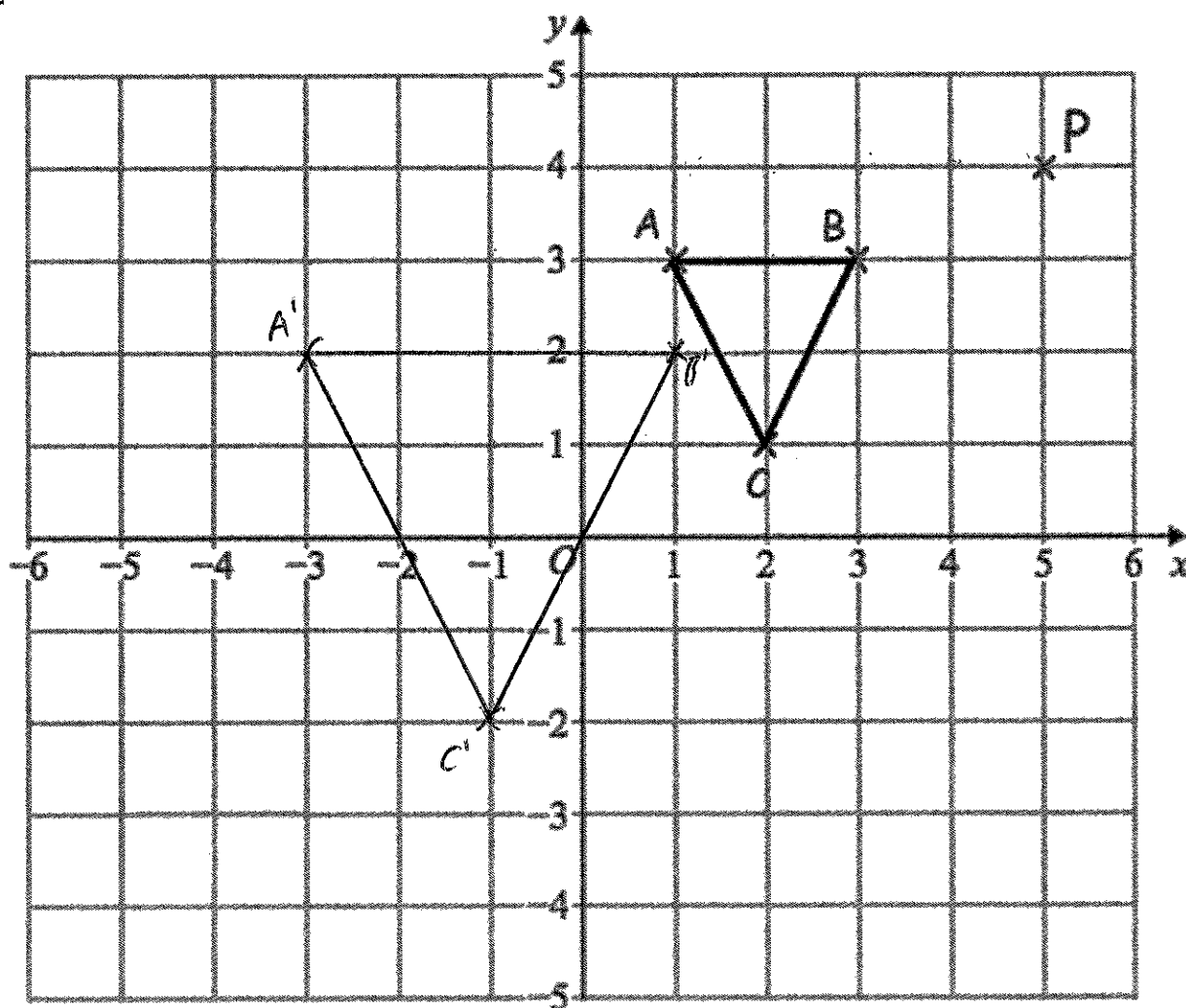
8. Shown below is a rectangle drawn on a coordinate grid.



Enlarge the rectangle by scale factor 2, using centre of enlargement $(-1, 0)$.

(3)

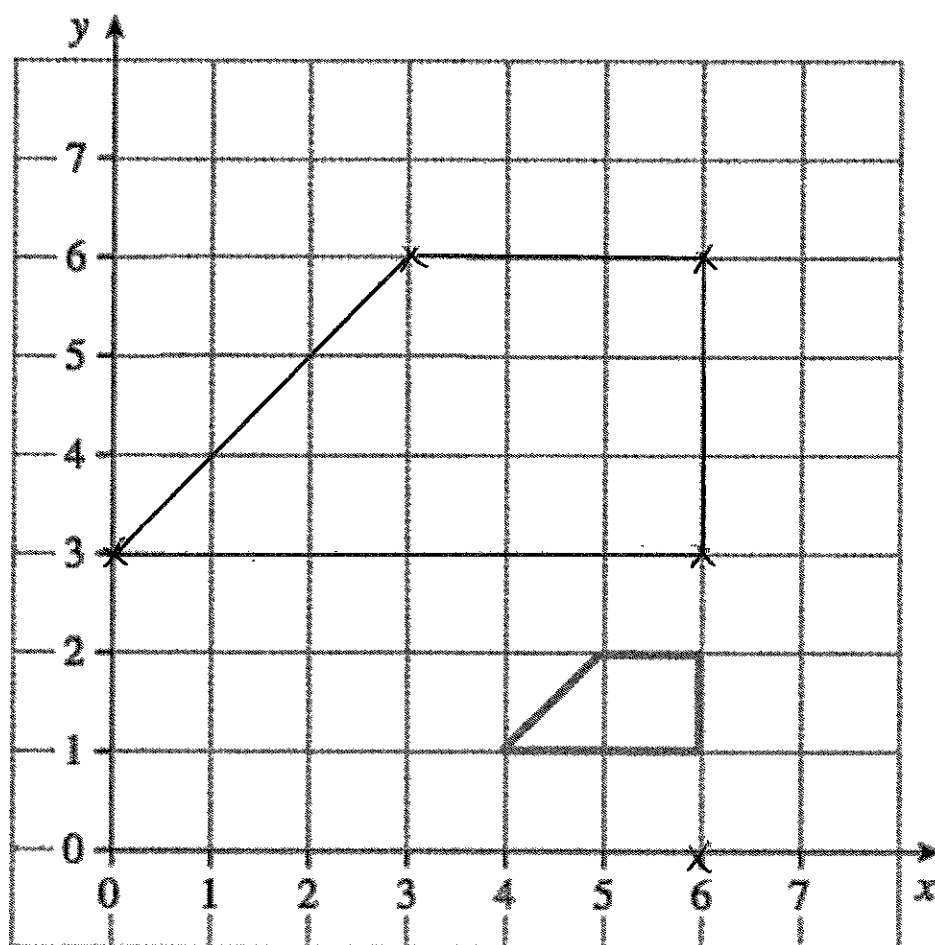
9.



Enlarge triangle ABC by scale factor 2, using the point P as the centre of enlargement.

(3)

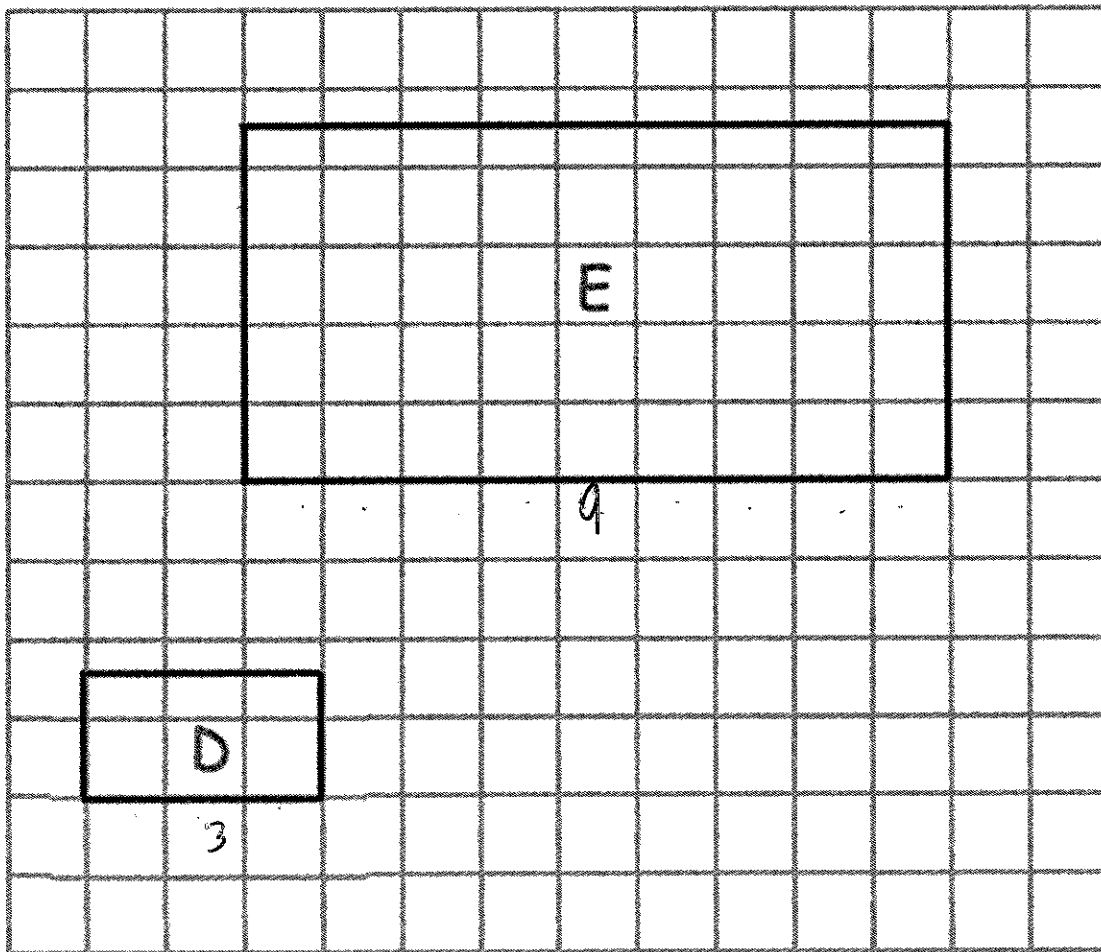
10.



Enlarge the trapezium by scale factor 3, centre (6, 0).

(2)

11. Rectangle E is an enlargement of rectangle D on the centimetre grid.



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

3
.....
(1)

Rectangle E is enlargement by scale factor 20 to give rectangle F.

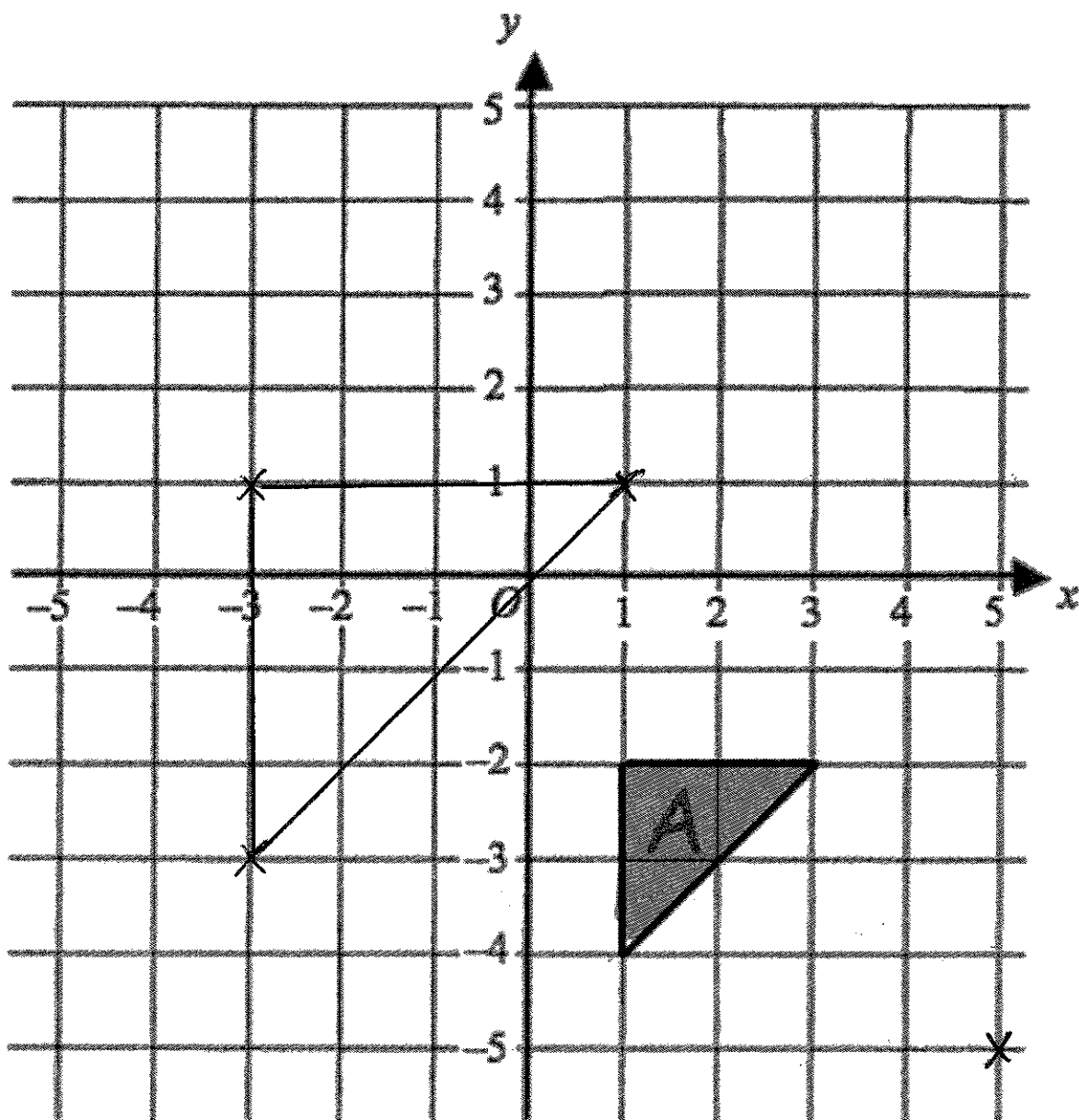
- (b) Write down the length and width of rectangle F.

$$\begin{array}{ccc} \text{E} & \xrightarrow{\times 20} & \text{F} \\ \text{length } 9\text{cm} & & \text{length } 180\text{cm} \\ \text{width } 4.5\text{cm} & & \text{width } 90\text{cm} \end{array}$$

Length180.....cm

Width90.....cm
(2)

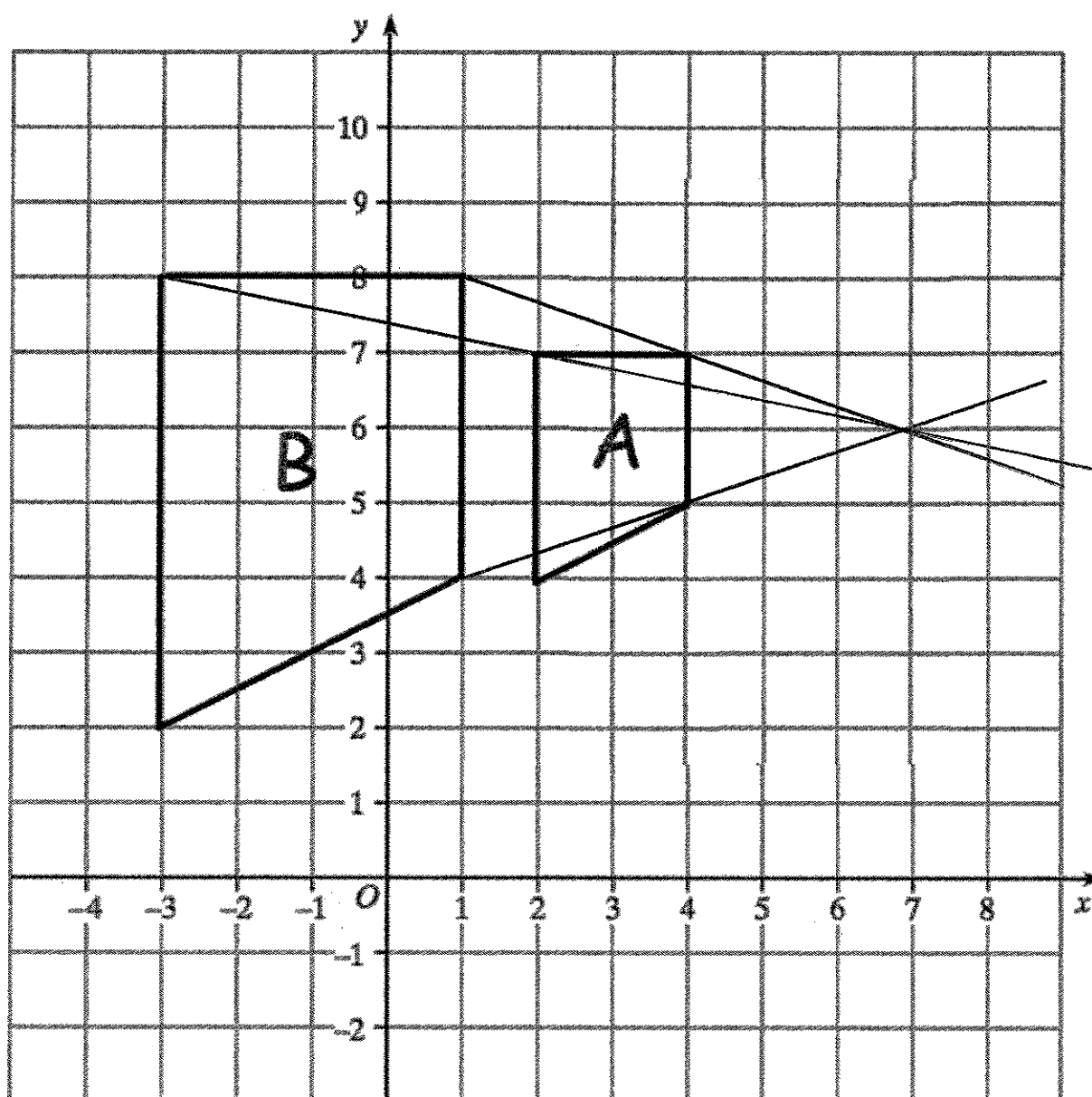
12.



Enlarge triangle A by scale factor 2, using centre of enlargement (5, -5).

(3)

13.

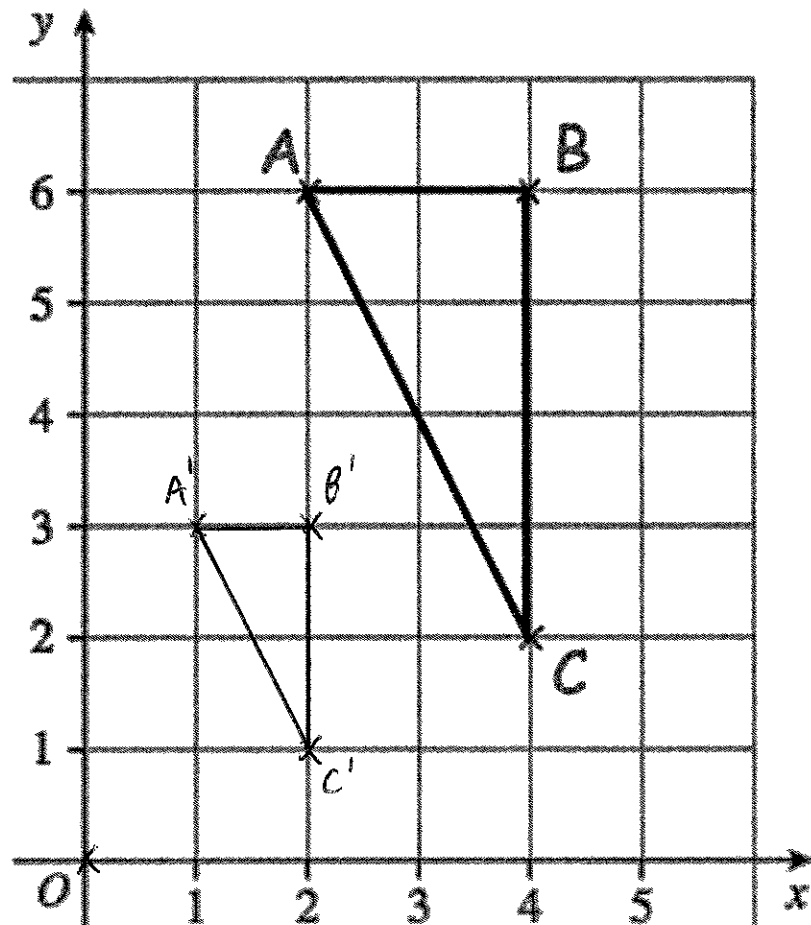


Describe fully the single transformation that maps shape A onto shape B.

An enlargement by scale factor 2, centre
of enlargement (7, 6)

(2)

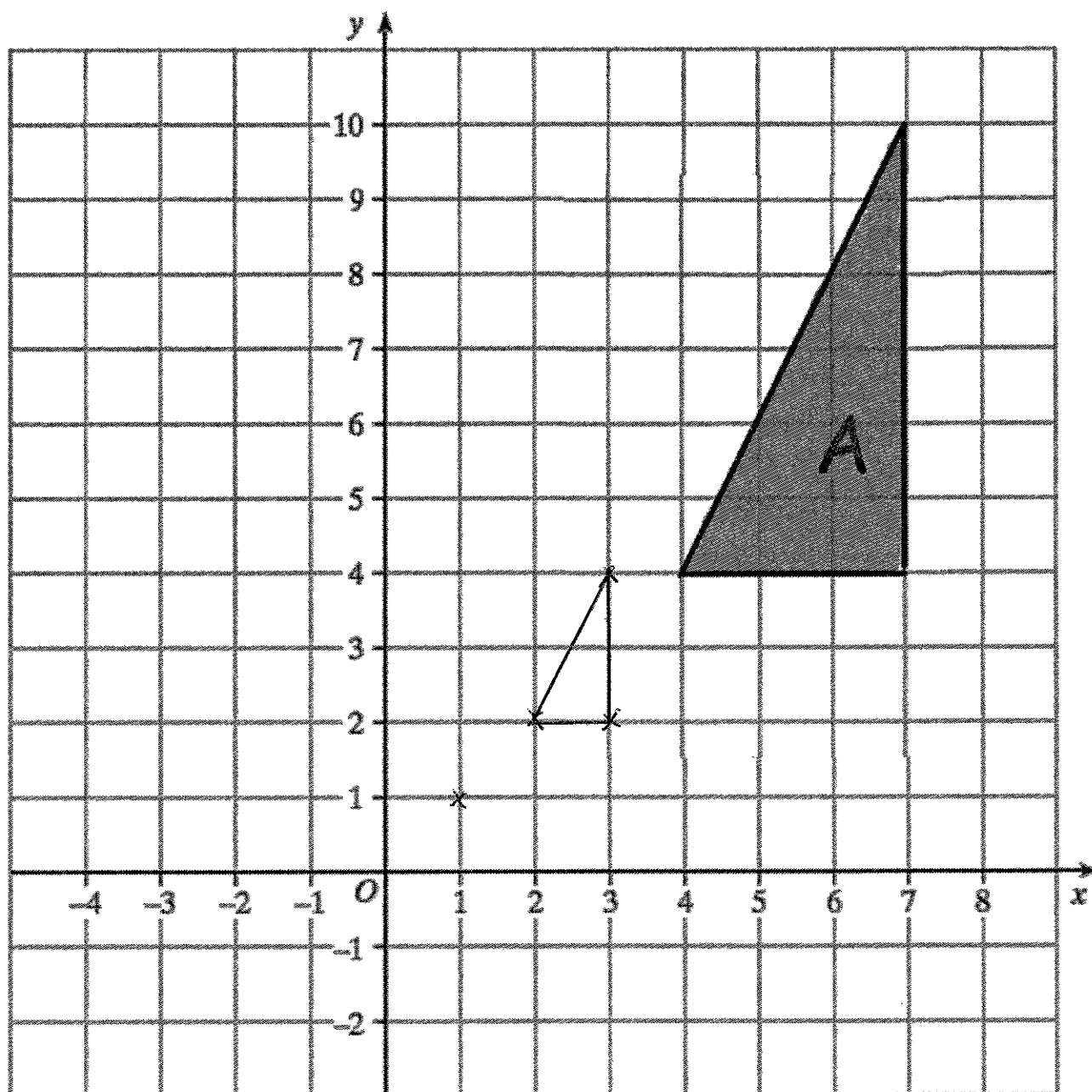
14.



Triangle ABC is drawn on the grid.

Enlarge triangle ABC with scale factor $\frac{1}{2}$ and centre (0,0)

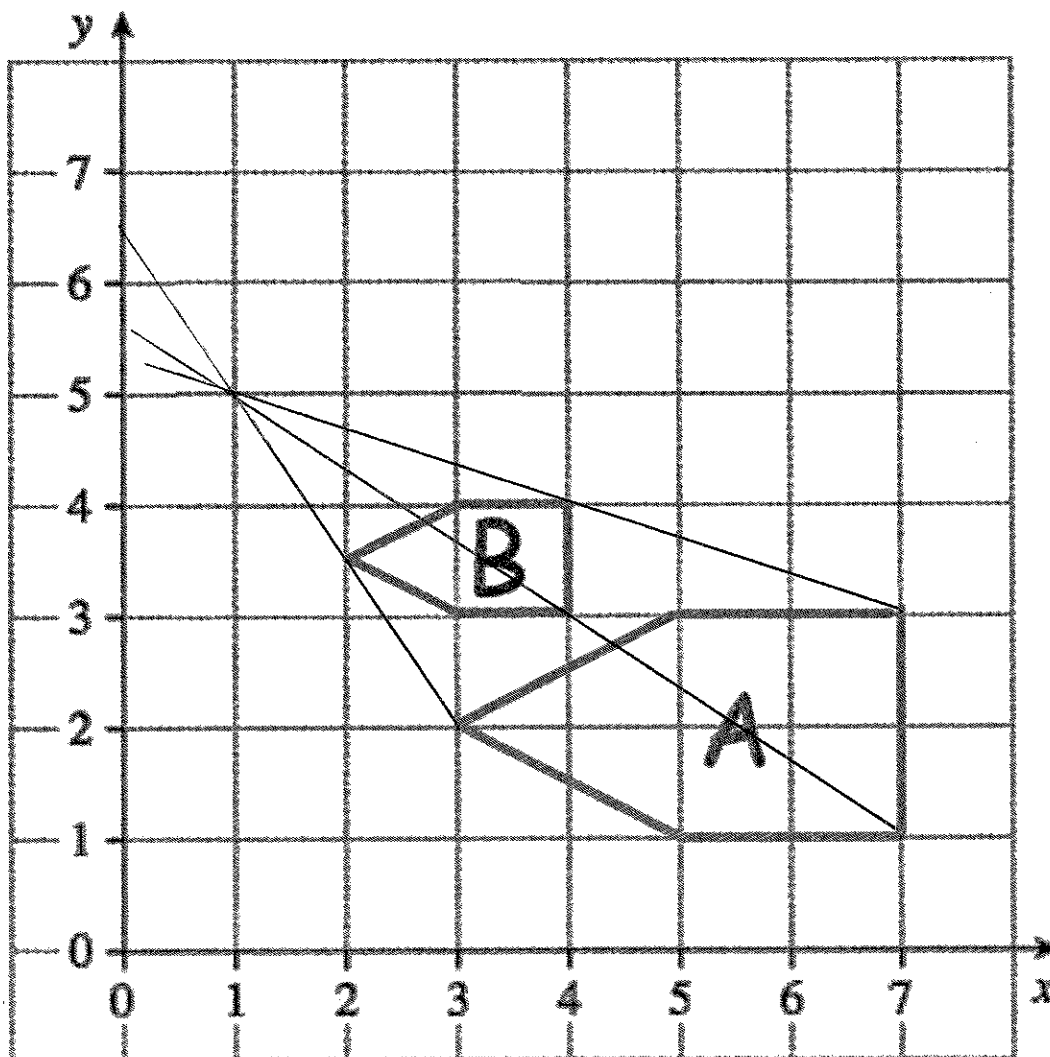
15. The diagram shows shape A



Draw the enlargement of shape A with scale factor $\frac{1}{3}$ and centre of enlargement (1,1).

(3)

16.



Describe fully the single transformation that maps shape A onto shape B.

An enlargement, scale factor $\frac{1}{2}$, centre of enlargement (1, 5)

(2)