Surname	
Other Names	
Candidate's Signature	

GCSE 9 - 1 Questions

Enlargement with Negative and Fraction Scale Factor

Calculator Allowed

INSTRUCTIONS TO CANDIDATES

Write your name in the space provided.

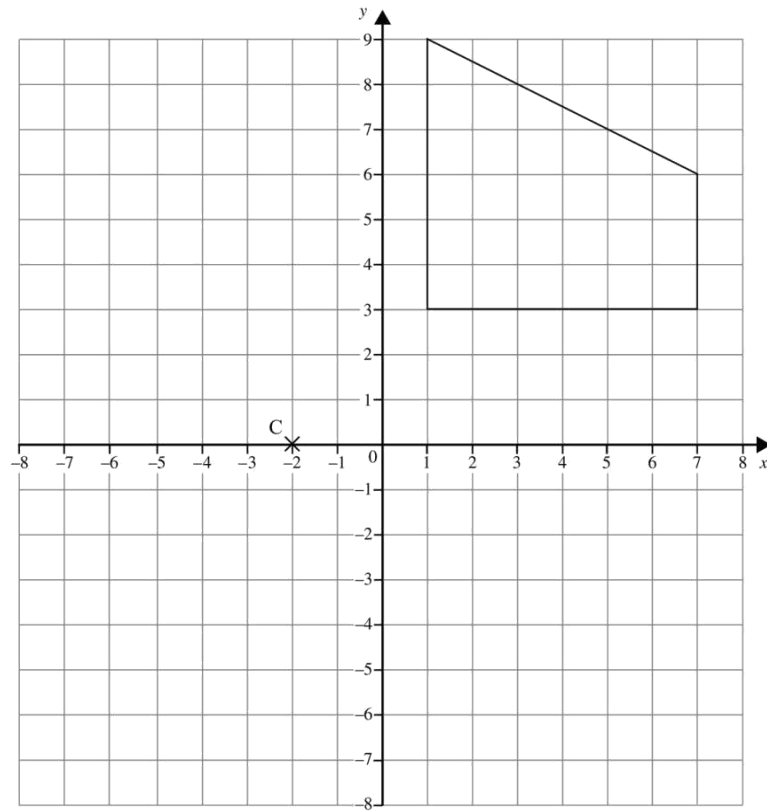Write your answers in the spaces provided in this question paper.

Answer ALL questions.

Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

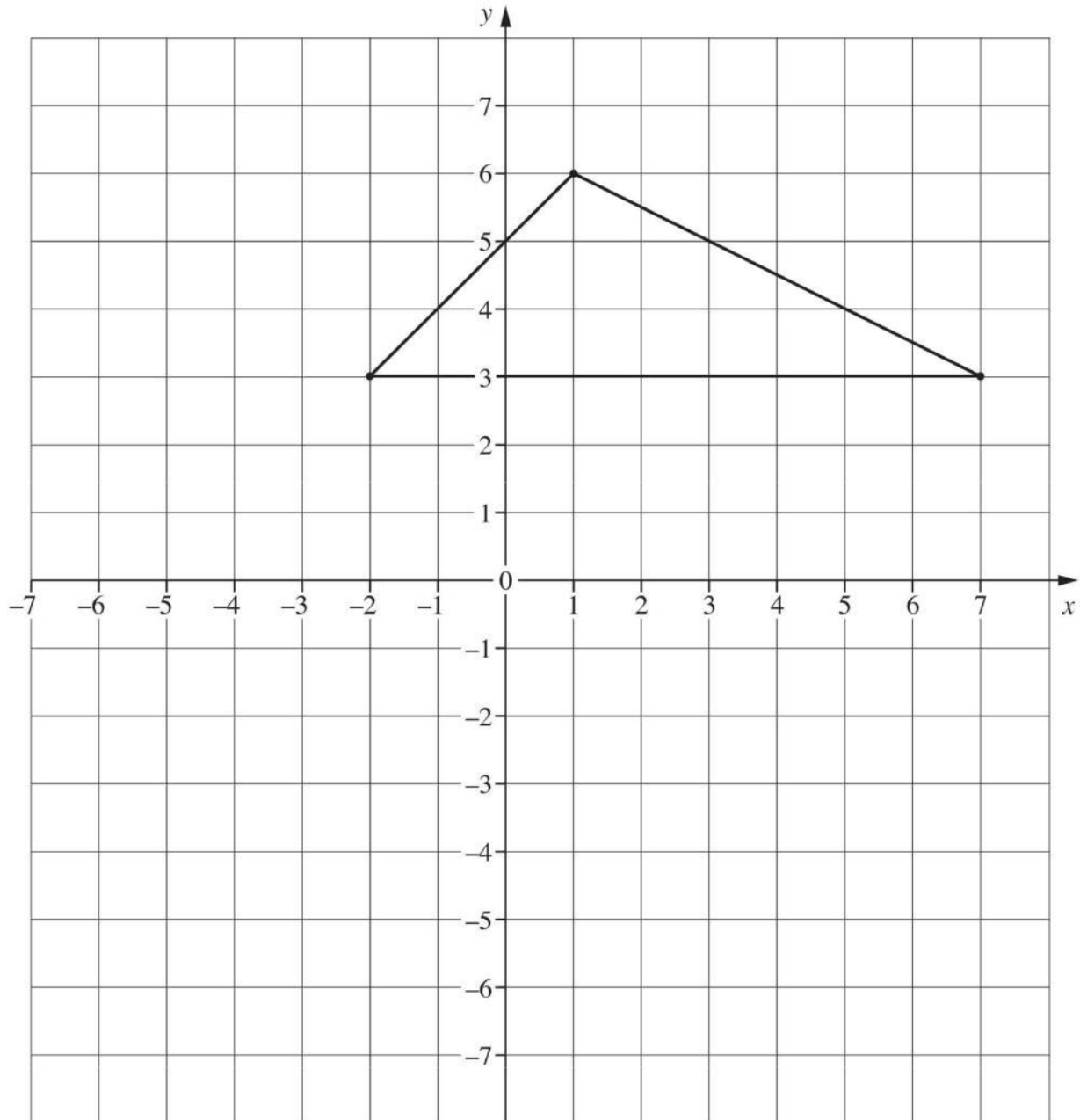You should have a ruler, compass and protractor where required.

Total Marks :

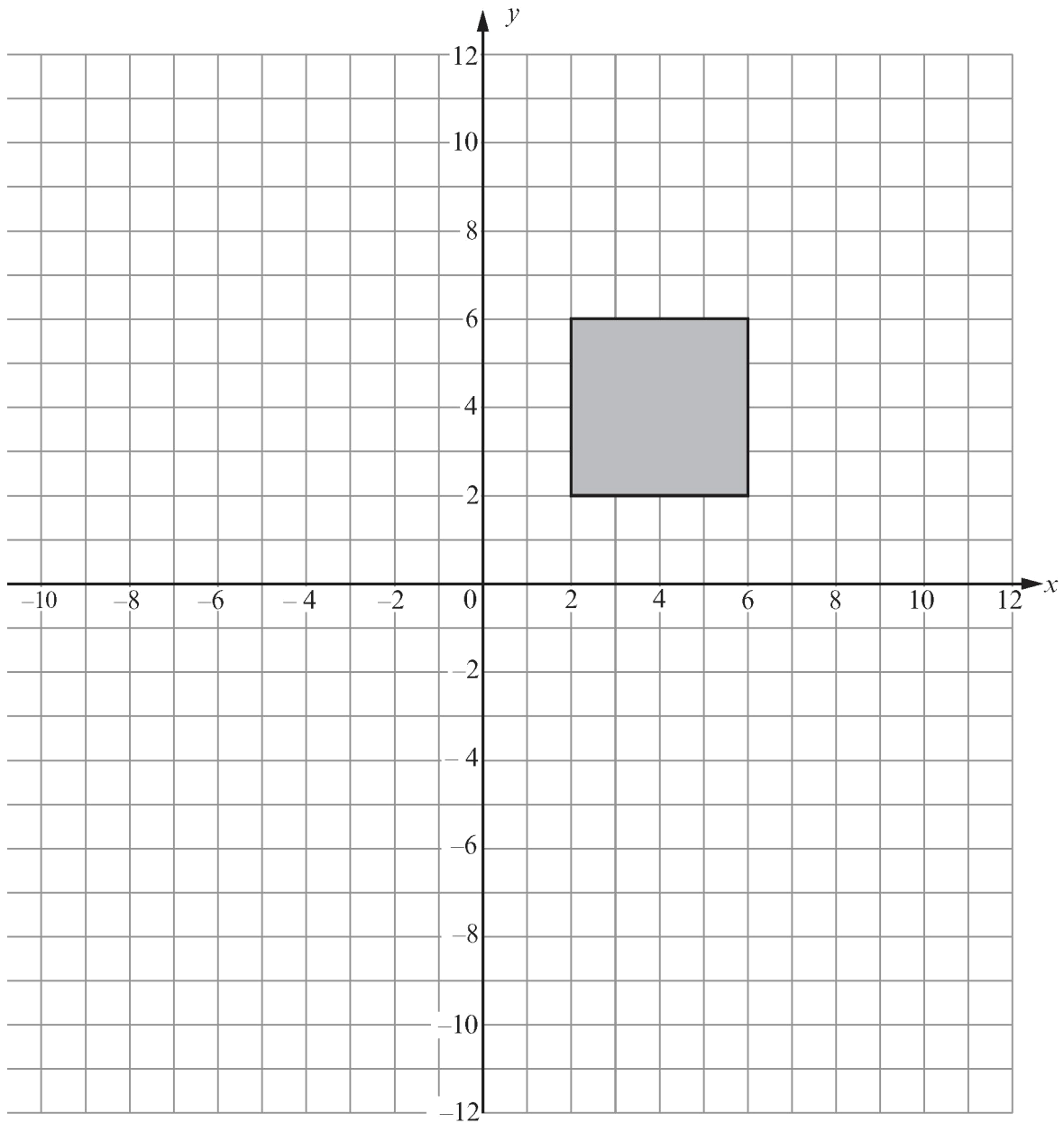1) Enlarge the shape on the grid by scale factor $\frac{1}{3}$ and centre C.

[2]

2) Enlarge the triangle by scale factor −1, centre of enlargement (1, 0).
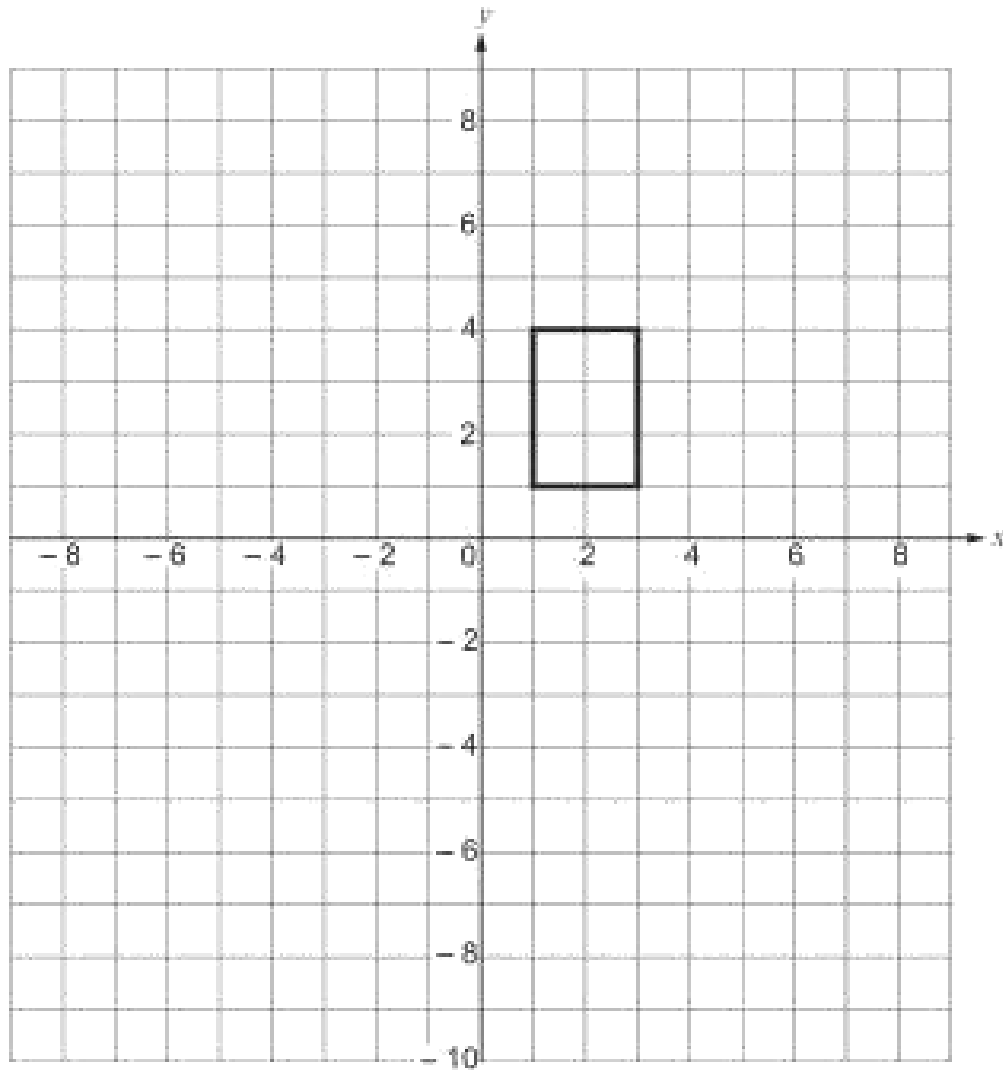

[3]

3) Enlarge the square shown on the grid below by a scale factor of $-\frac{1}{2}$ using $(0, 0)$ as the centre of enlargement.
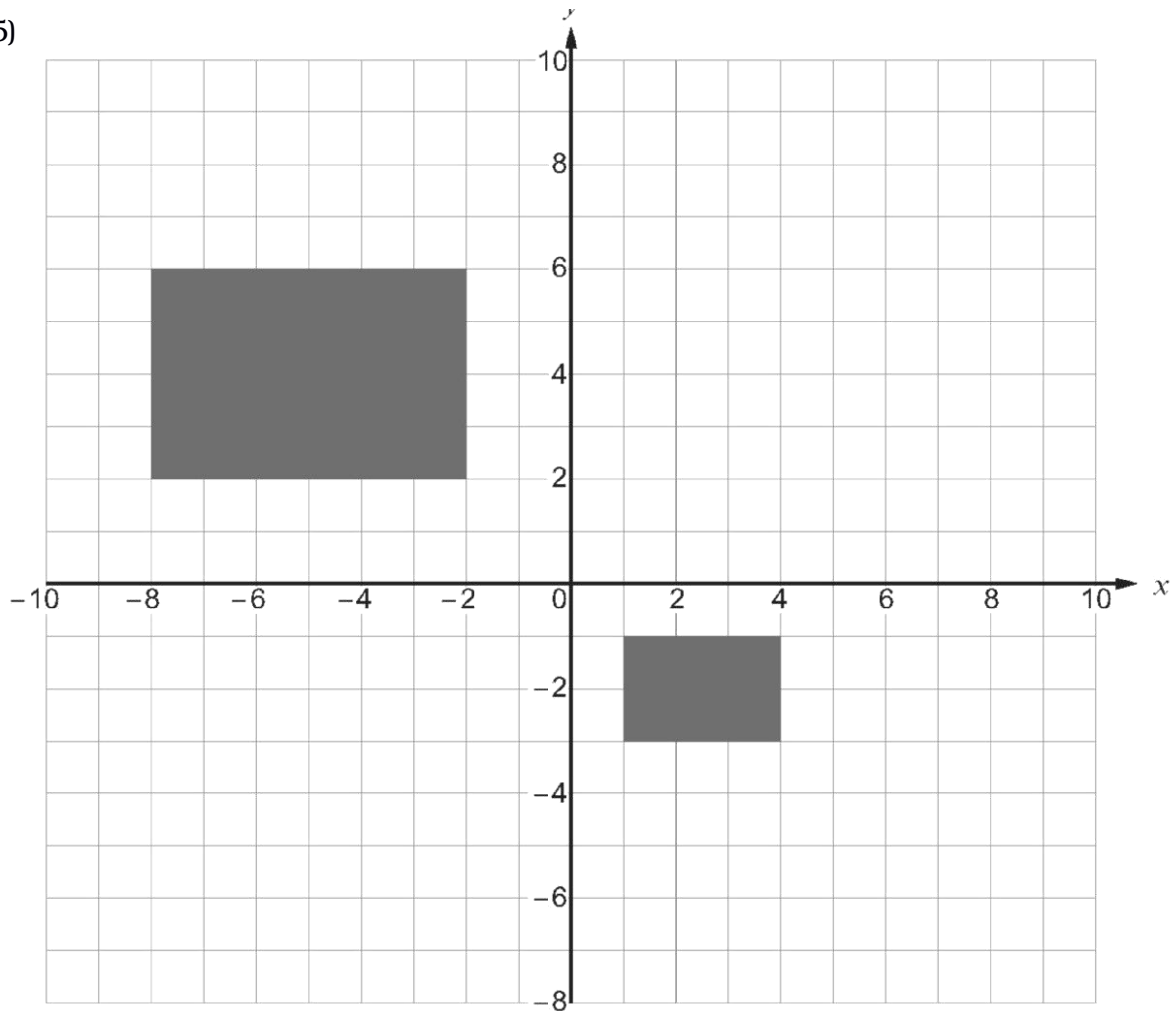

[2]

4) Enlarge the rectangle by a scale factor of −2 using the origin as the centre of enlargement. [2]

5)

The larger rectangle is transformed to the smaller rectangle.
The coordinates of the centre of the enlargement are (0, 0).
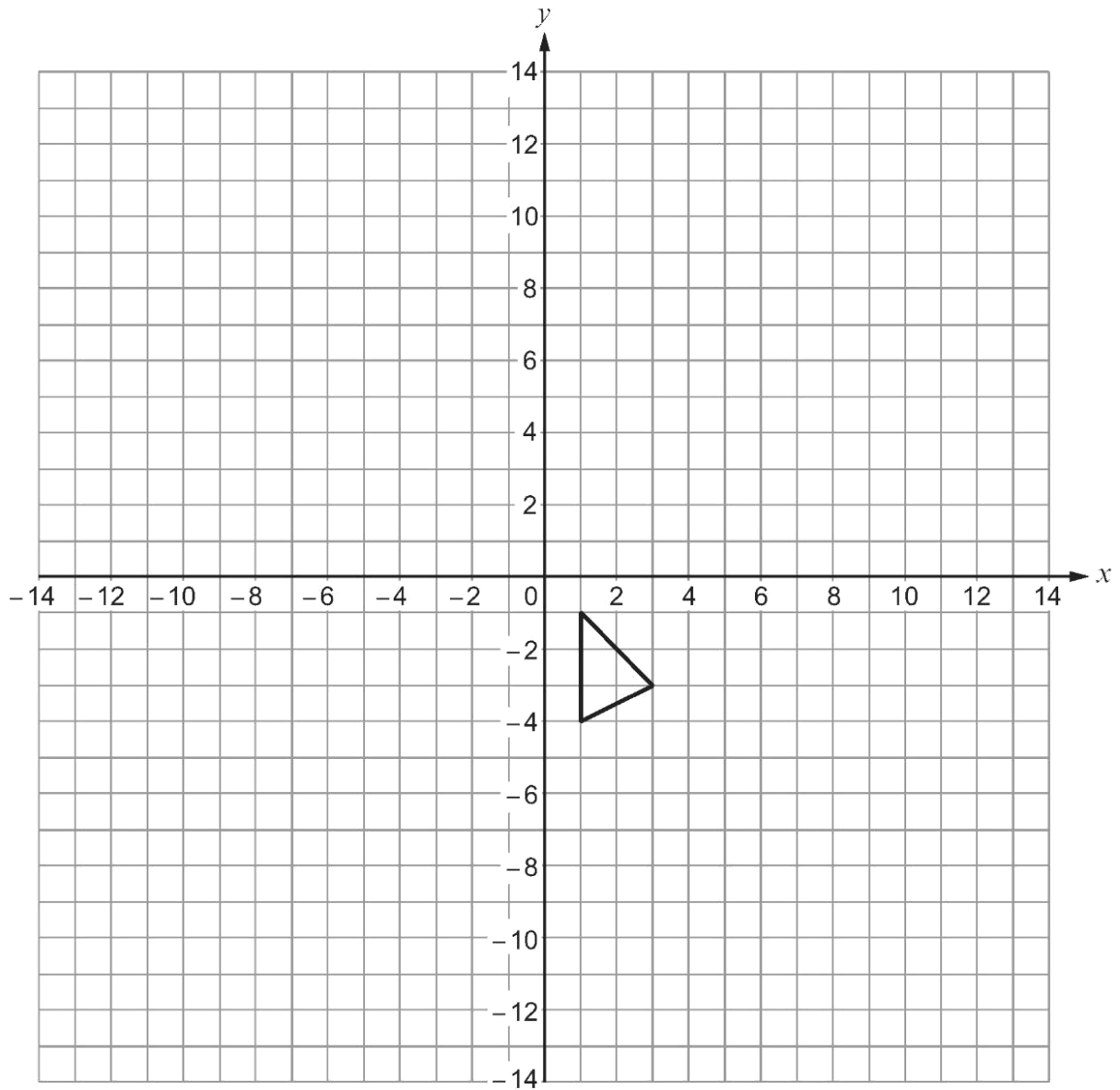
Complete the following sentence to fully describe this transformation.   [2]

The transformation of the larger rectangle to the smaller rectangle is an enlargement
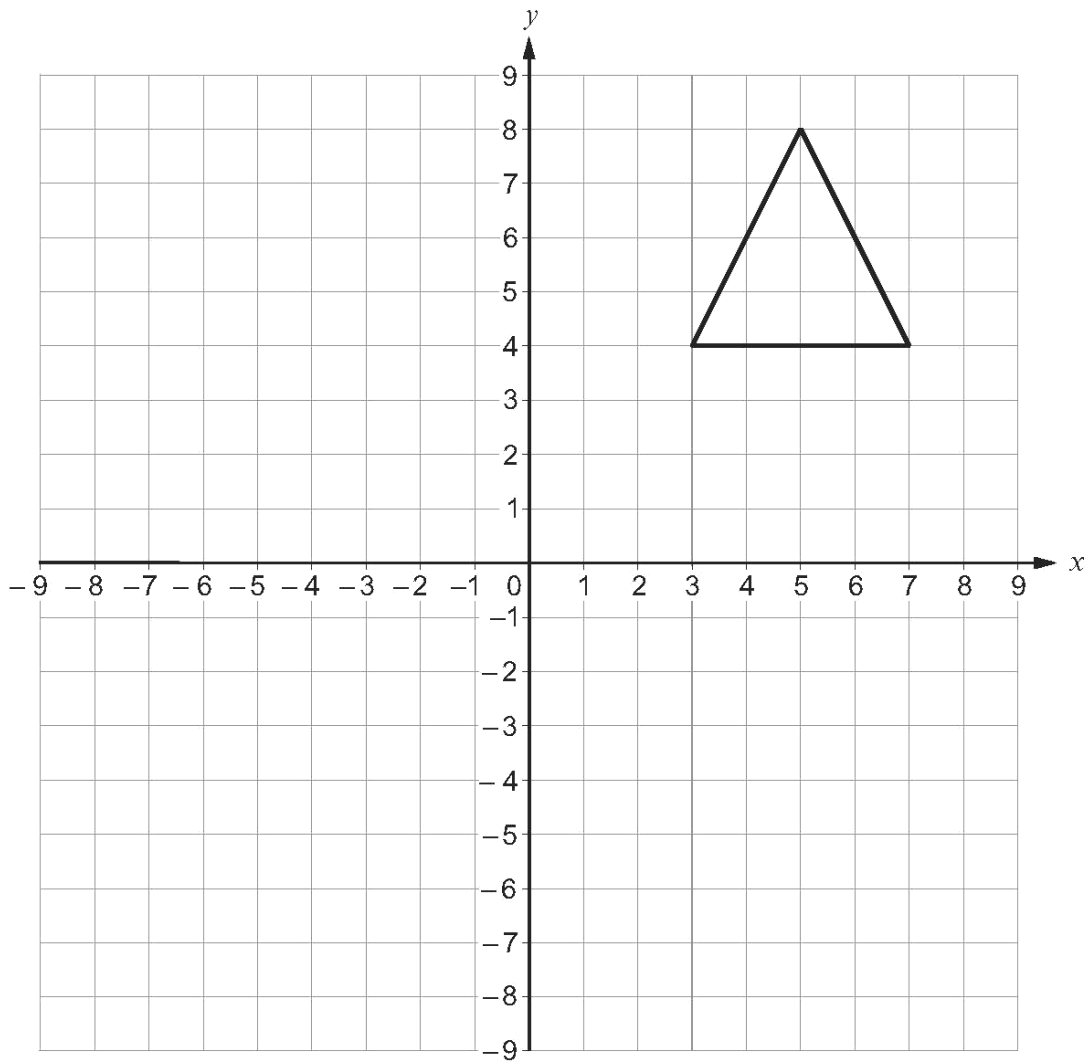
with scale factor ……………………. and centre (0, 0).

6) Draw the enlargement of the given triangle, using
   - a scale factor of −2,
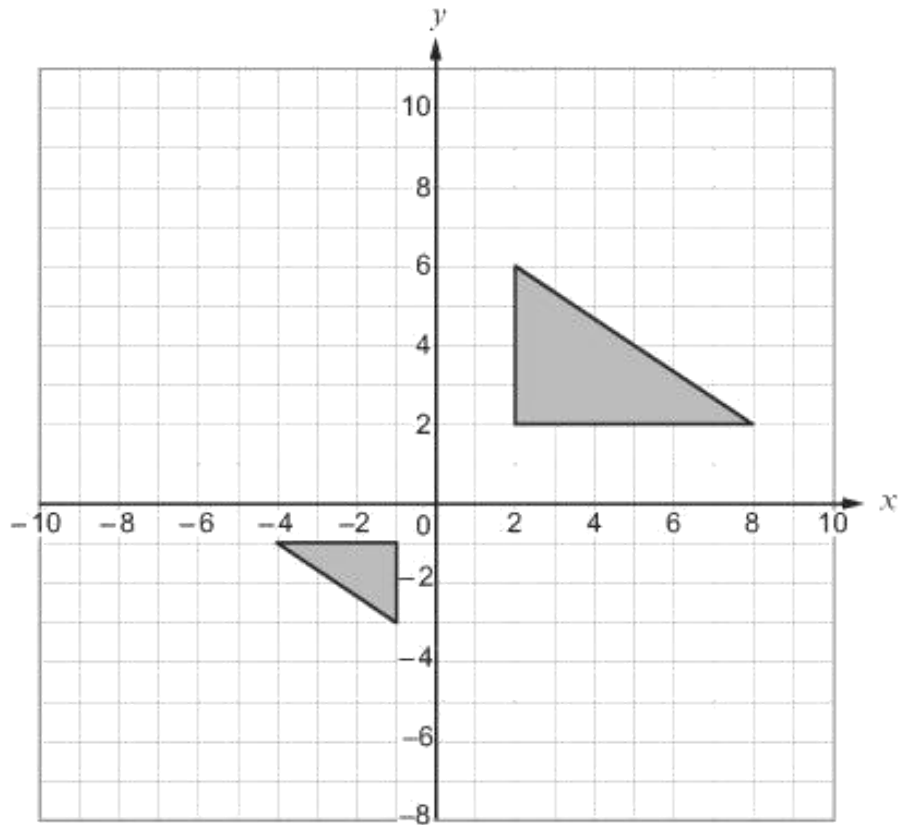   - (−2, 1) as the centre of enlargement. [3]

7) Enlarge the given triangle, using scale factor $-\dfrac{1}{2}$ and centre $(3, -2)$. [3]

8)

The larger triangle is transformed to the smaller triangle.
Complete the following sentences to describe this transformation.

The coordinates of the centre of the enlargement are (........, ...). [1]

The scale factor of the enlargement of the larger triangle to the smaller triangle

is .... [2]