

Name: _____

GCSE (1 – 9)

Negative Enlargement and Combined Transformations

Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

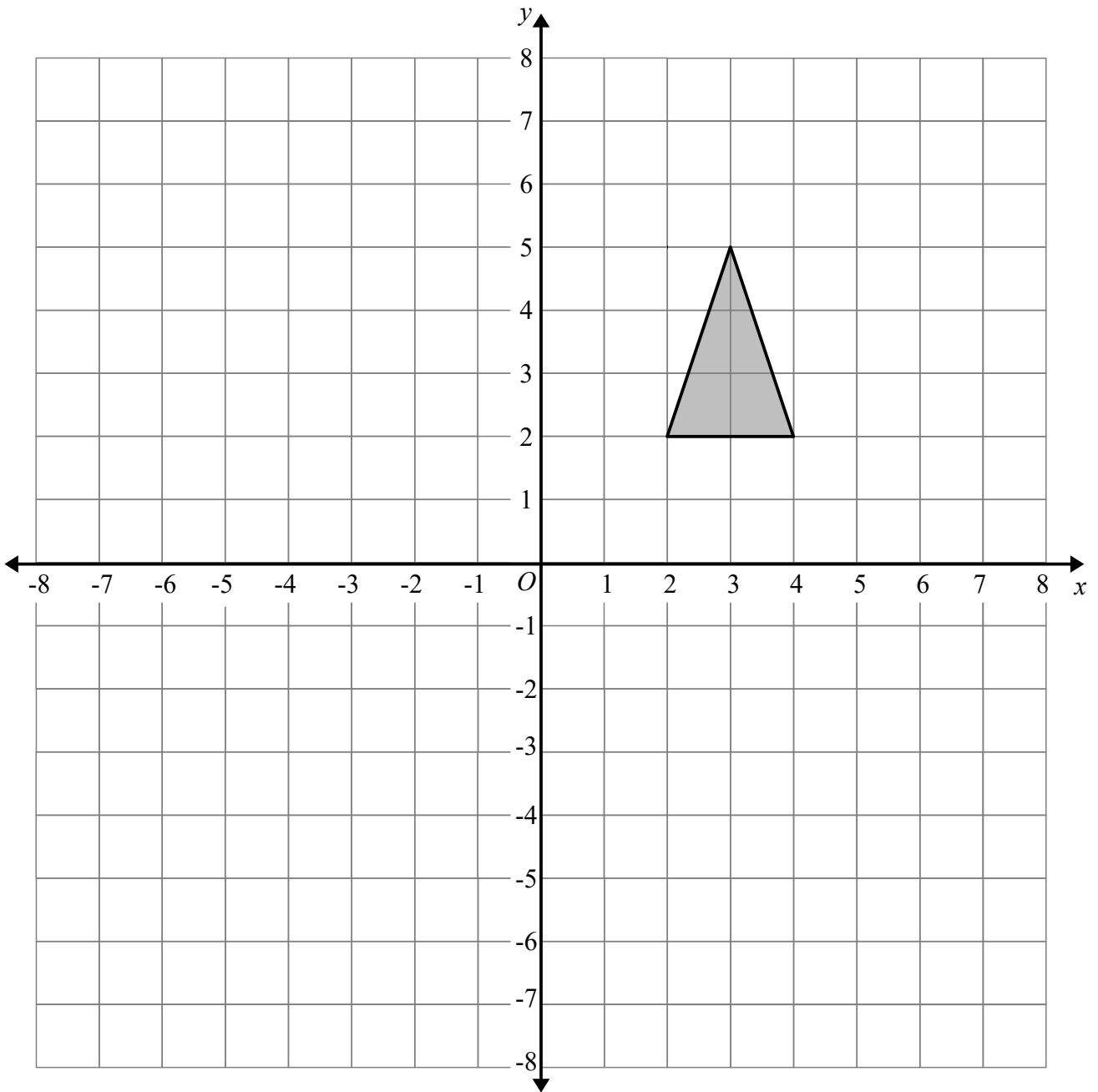
Information

- The marks for each question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

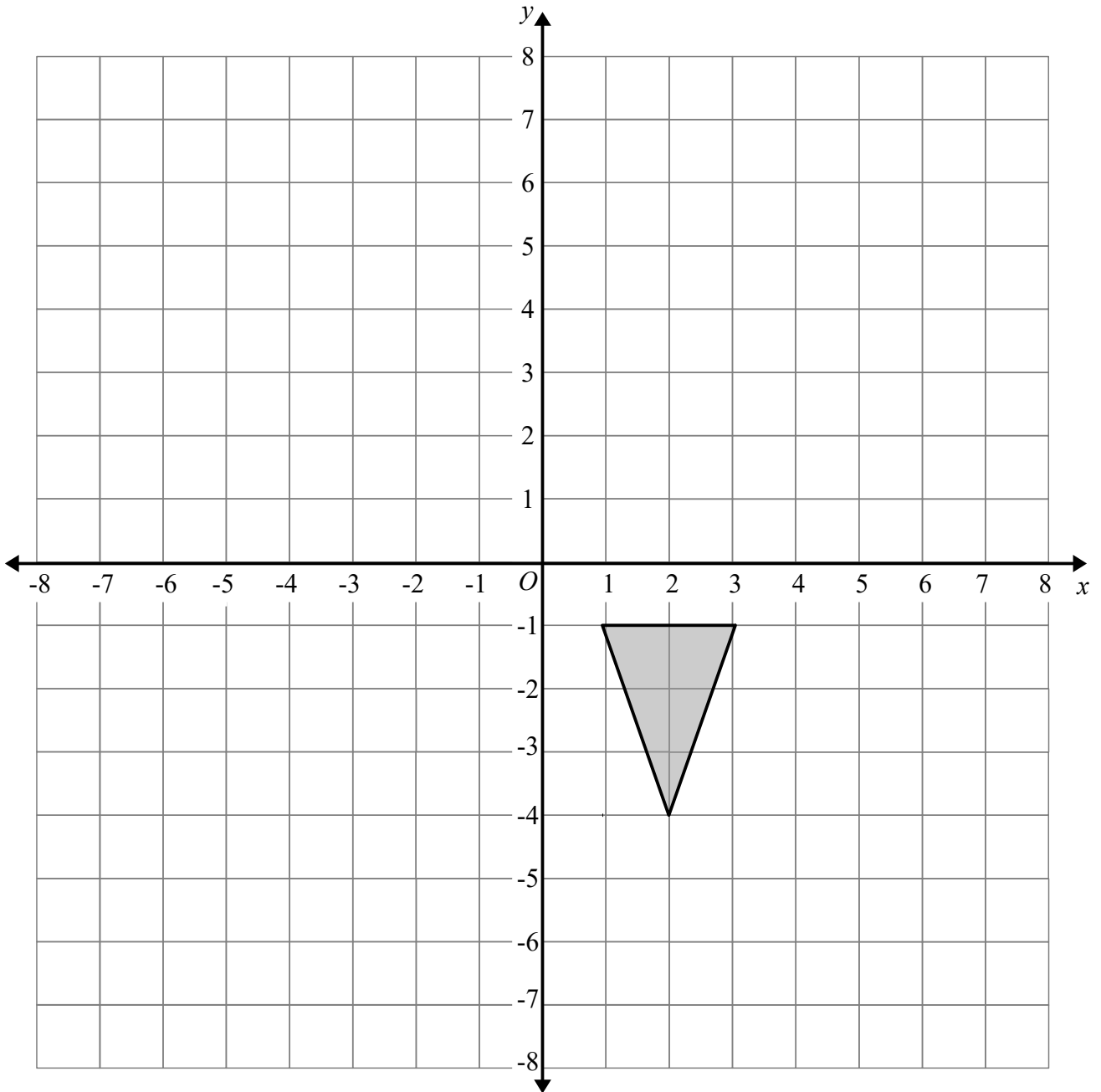
1



On the grid, enlarge the triangle by scale factor -2. centre (0,1)

(Total for Question 1 is 2 marks)

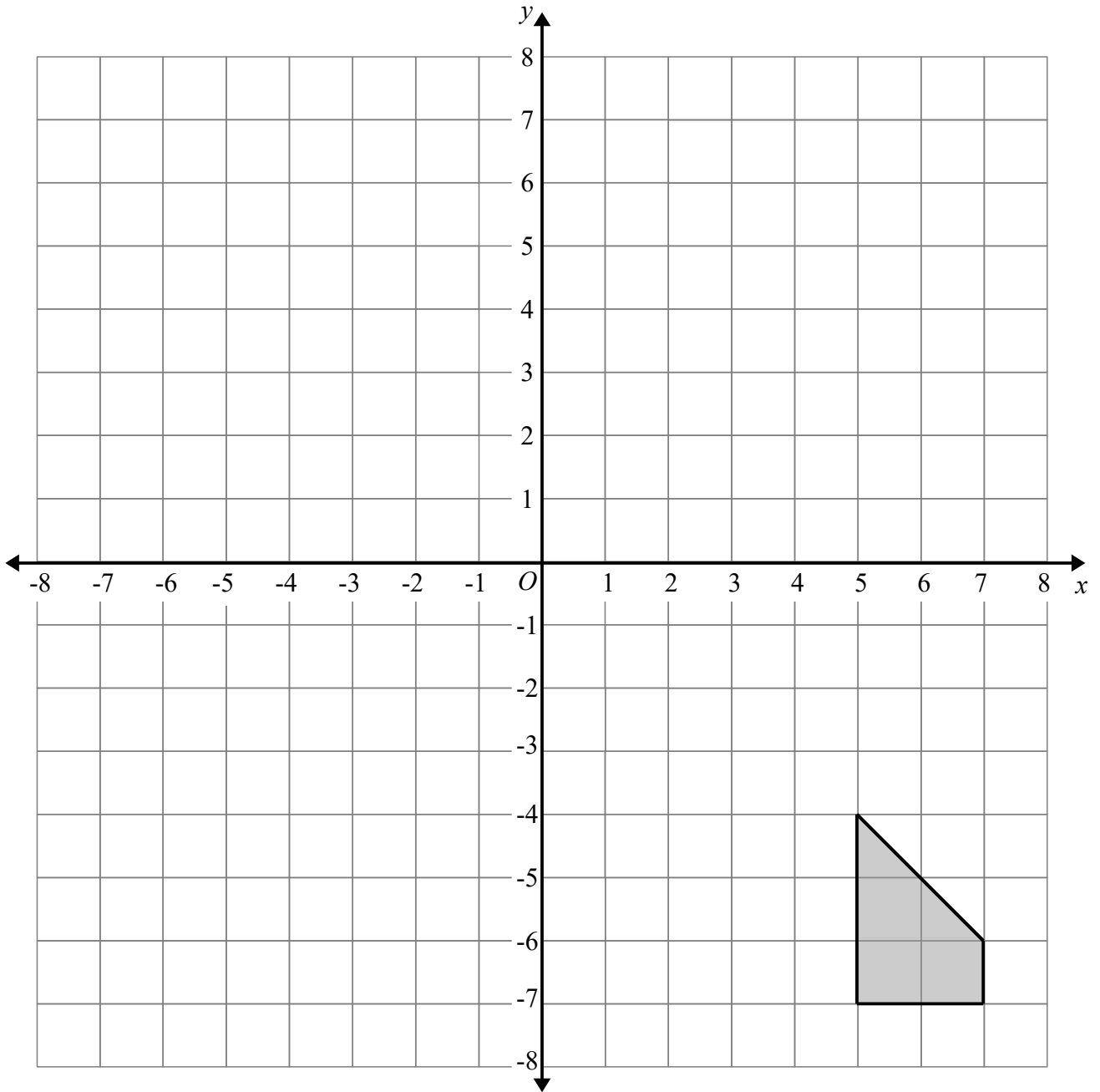
2



On the grid, enlarge the triangle by scale factor -2 . centre O

(Total for Question 2 is 2 marks)

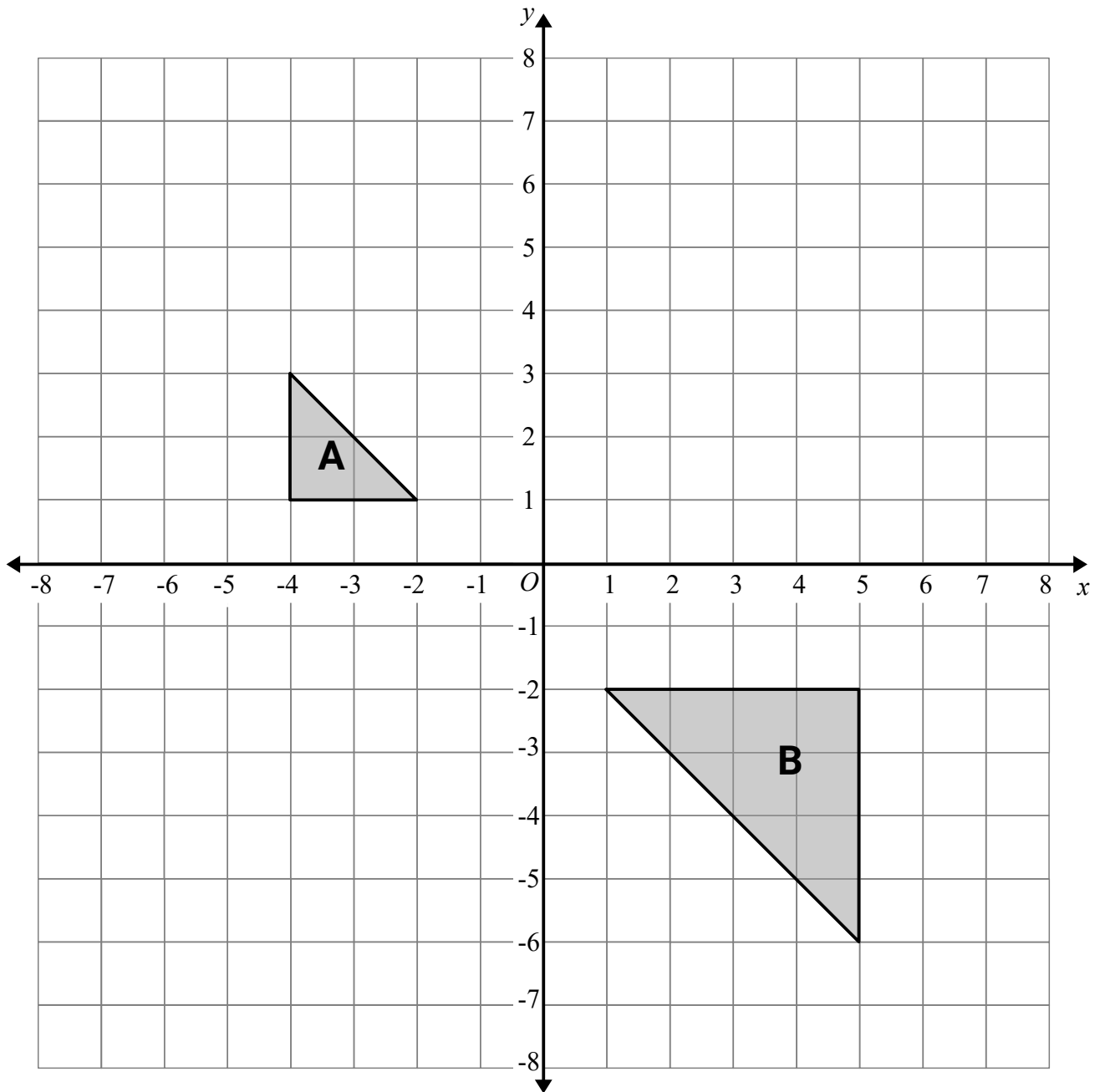
3



On the grid, enlarge the shape by scale factor -3. centre (4,-4)

(Total for Question 3 is 2 marks)

4



Describe fully the single transformation which maps triangle A onto triangle B.

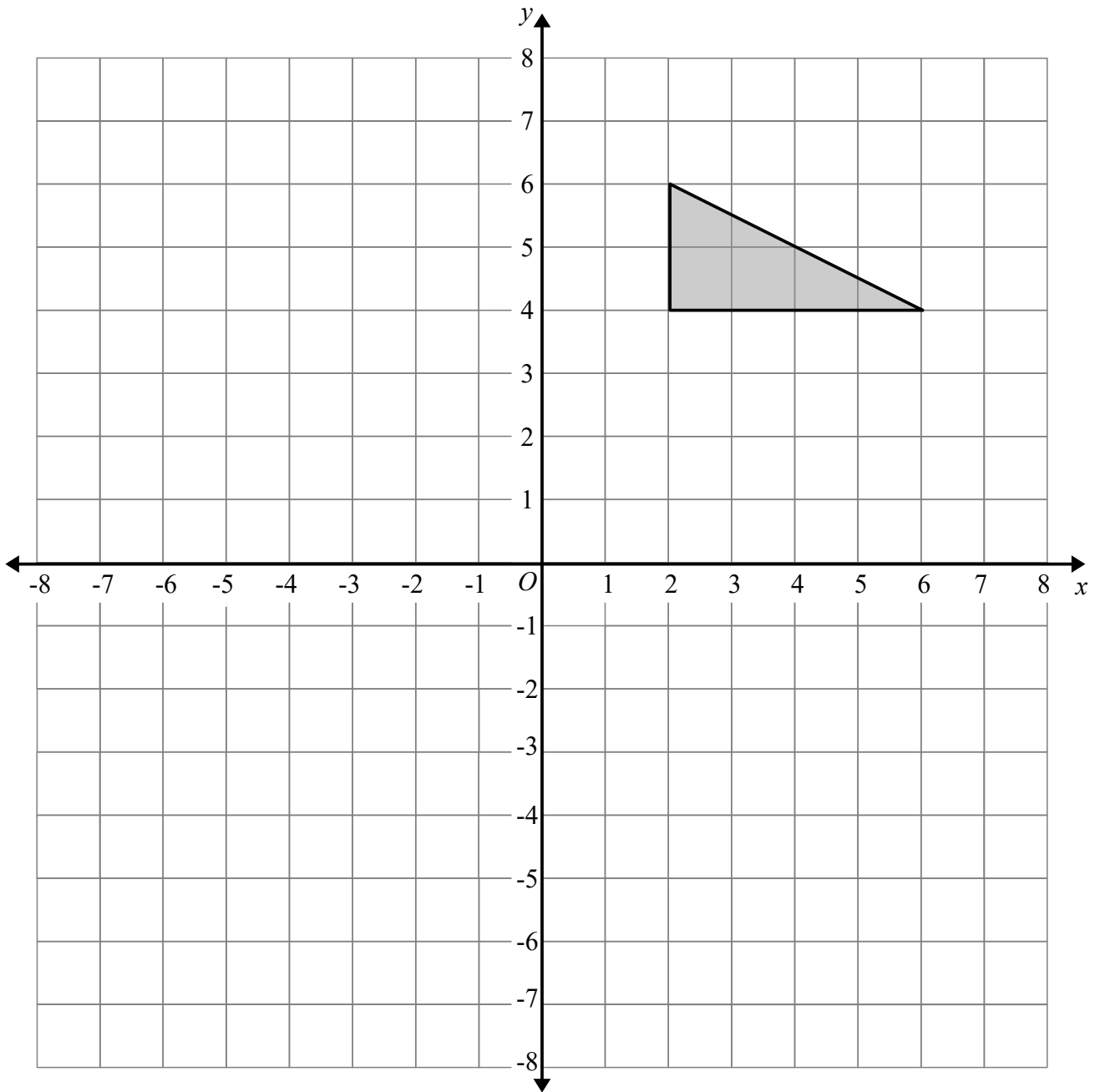
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(Total for Question 4 is 2 marks)

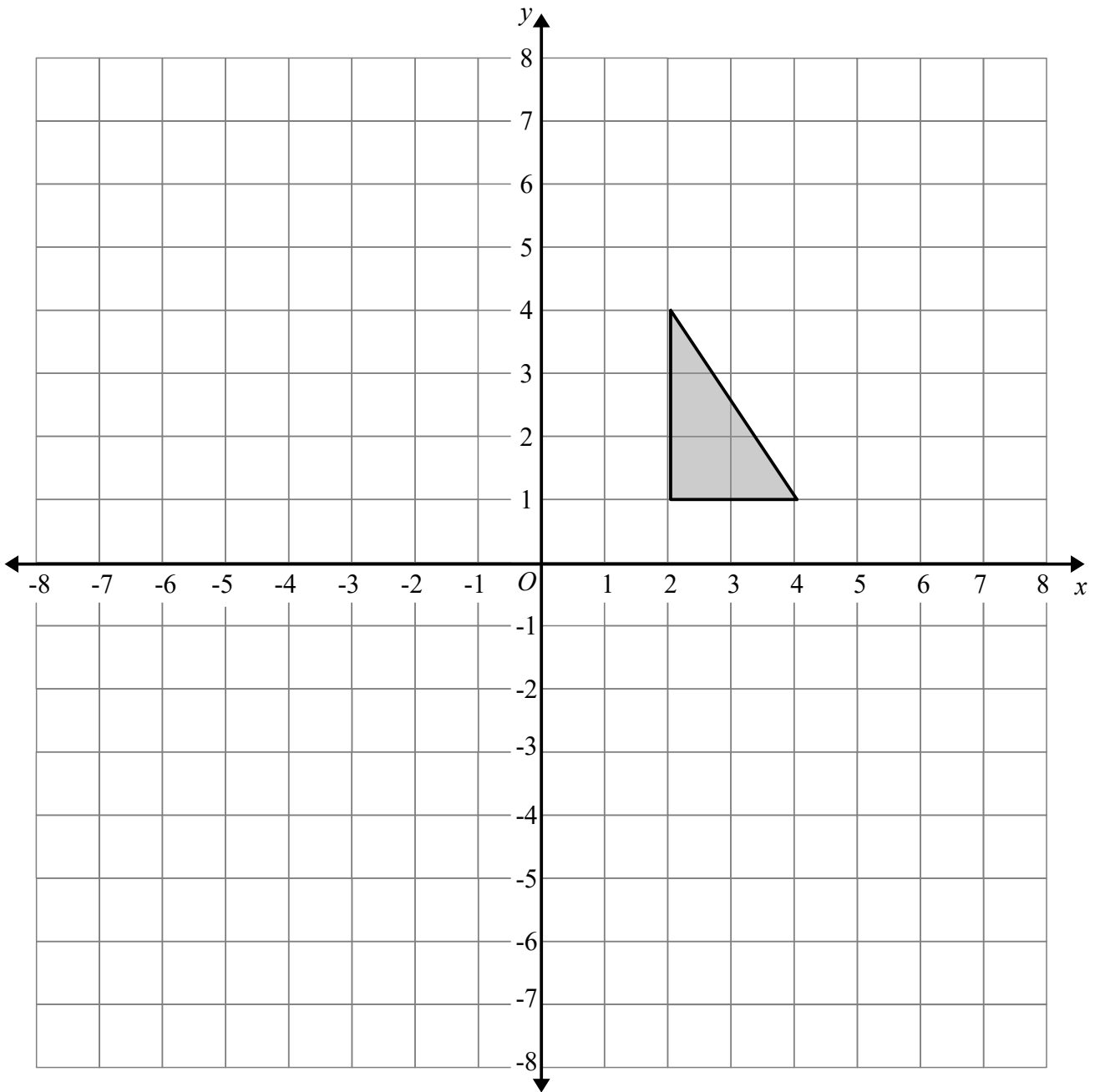
5



On the grid, enlarge the triangle by scale factor -0.5 . centre $(0,2)$

(Total for Question 5 is 2 marks)

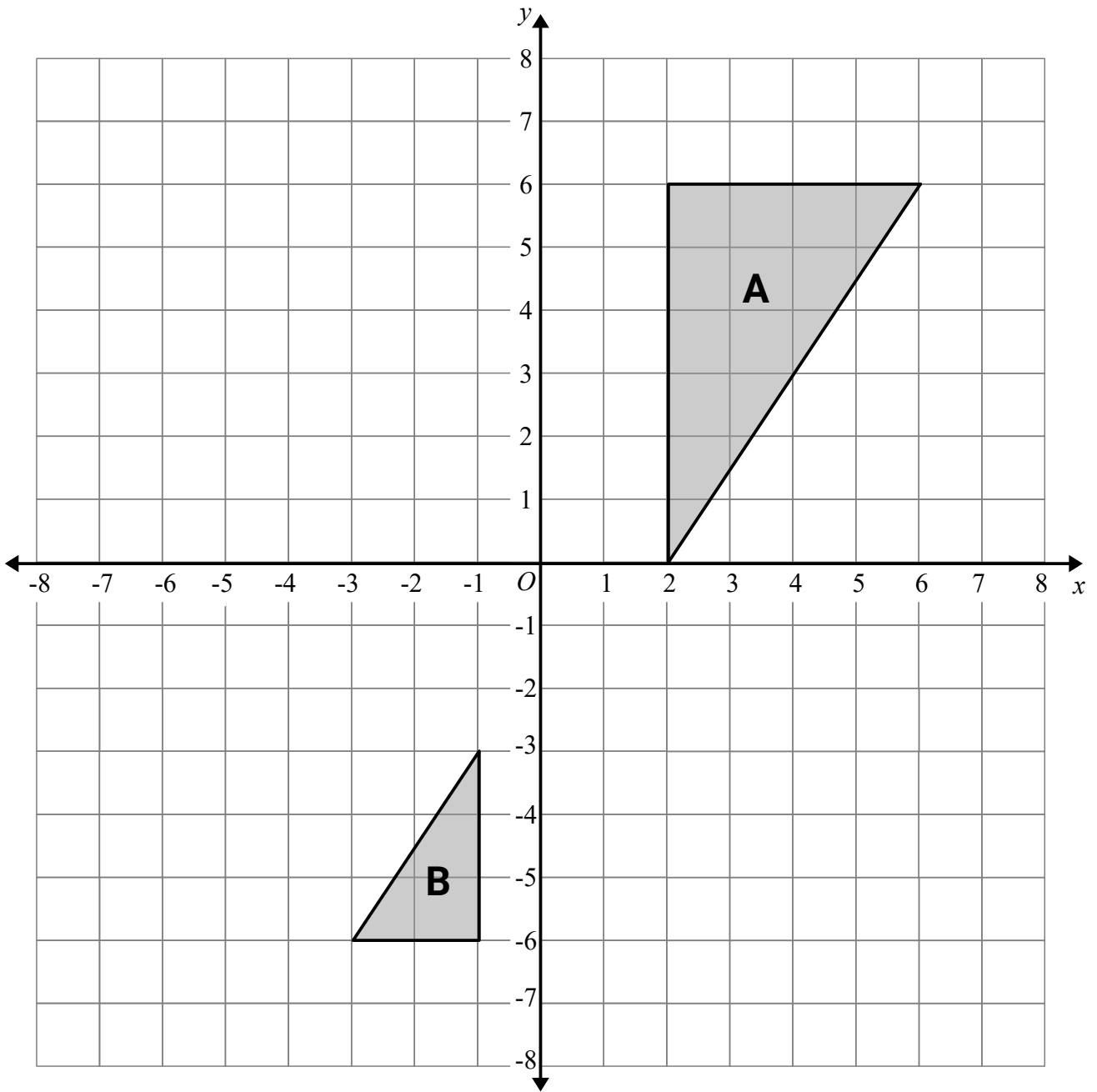
6



On the grid, enlarge the triangle by scale factor -1.5 , centre O .

(Total for Question 6 is 2 marks)

7



Describe fully the single transformation which maps triangle A onto triangle B.

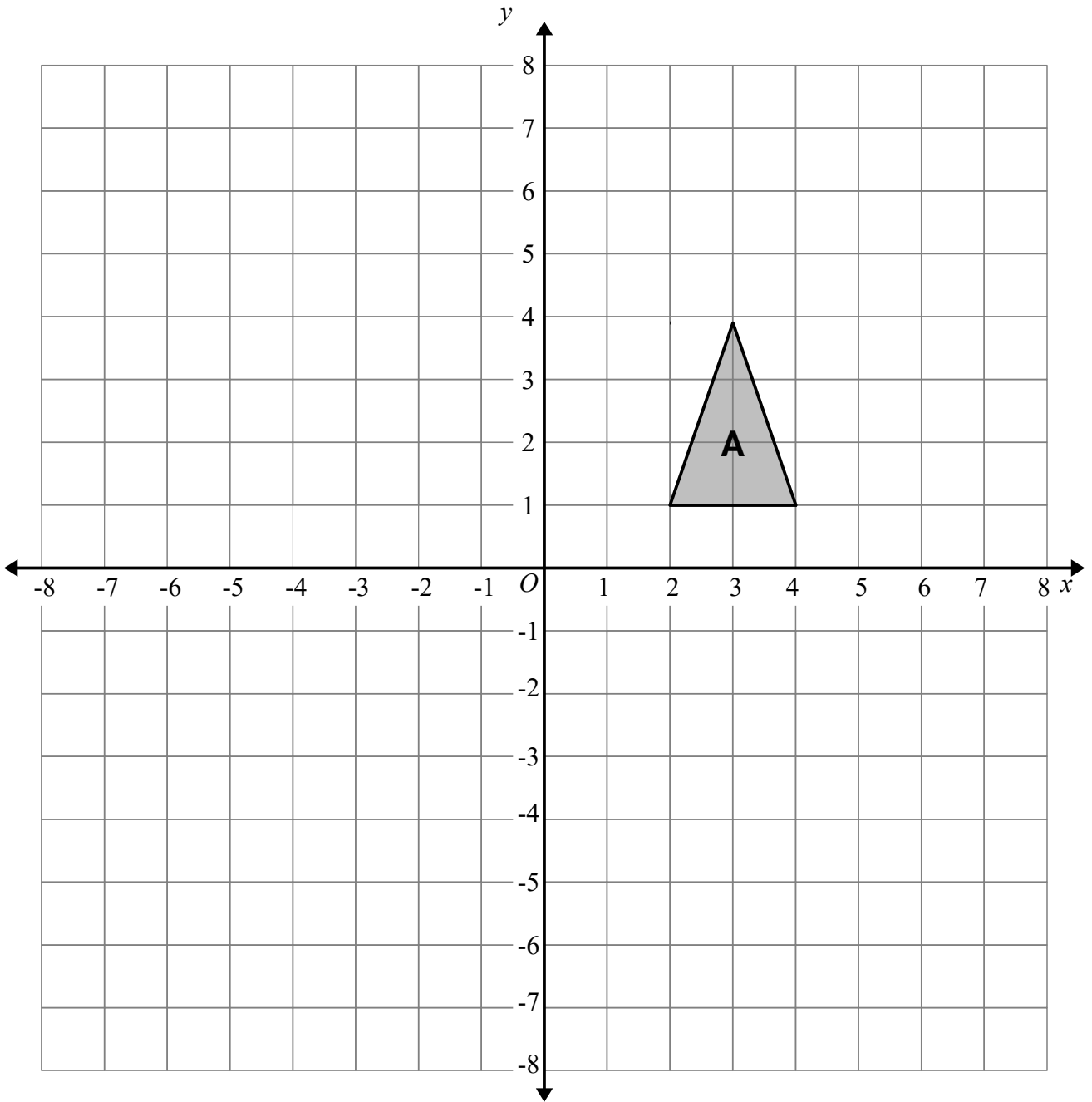
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(Total for Question 7 is 2 marks)

8



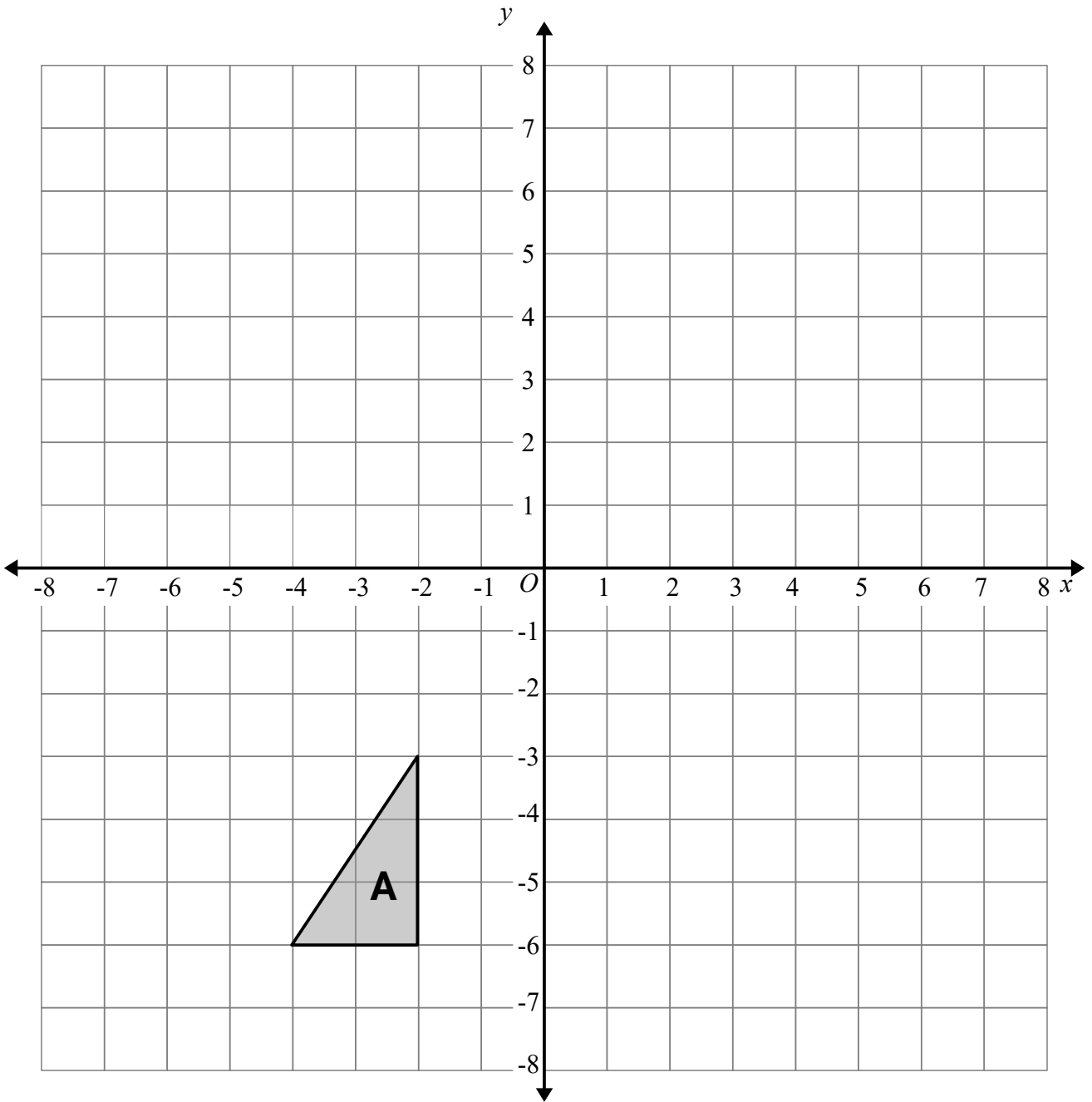
Shape **A** is reflected in the line $x = -1$ to give shape **B**.
Shape **B** is reflected in the line $y = -2$ to give shape **C**.

Describe the **single** transformation that will map shape **A** to shape **C**.

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(Total for Question 8 is 2 marks)

9



Shape **A** is reflected in the line $x = 1$ to give shape **B**.
Shape **B** is reflected in the line $y = -1$ to give shape **C**.

Describe the **single** transformation that will map shape **A** to shape **C**.

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(Total for Question 9 is 2 marks)