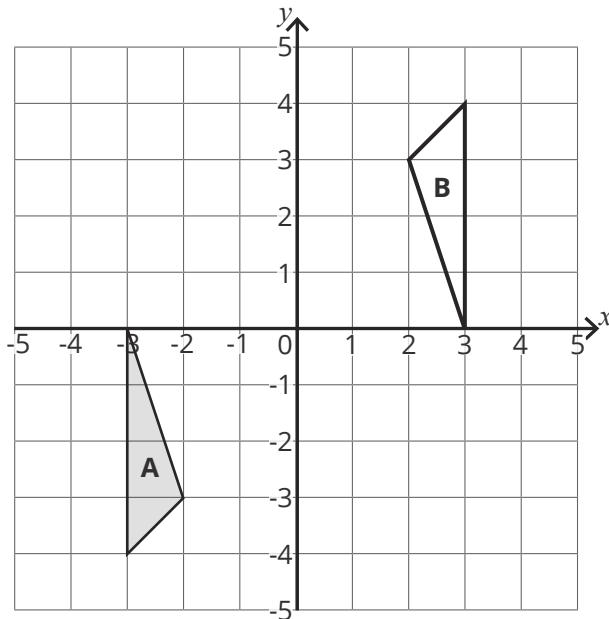# Rotations

You need to be able to rotate a shape and describe a rotation. The three things you need to describe a rotation are:

- The angle of rotation (e.g. 90°)
- The direction or rotation (clockwise or anticlockwise).
- The centre of rotation (this can be found by using a piece of tracing paper and trial and error).
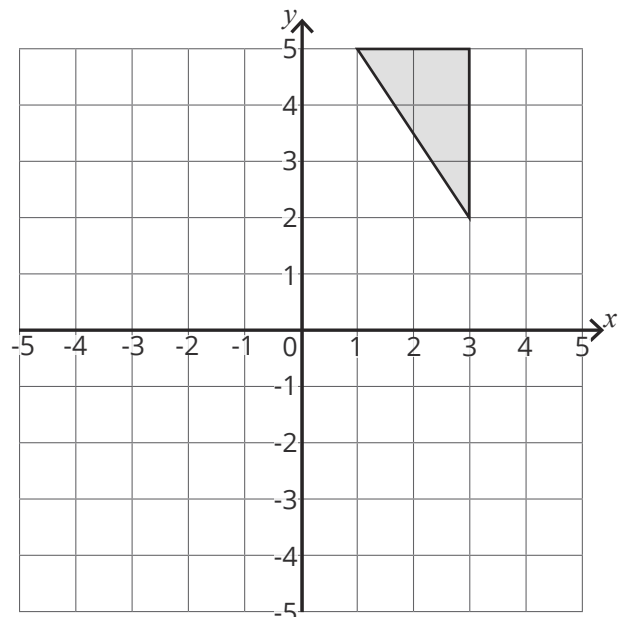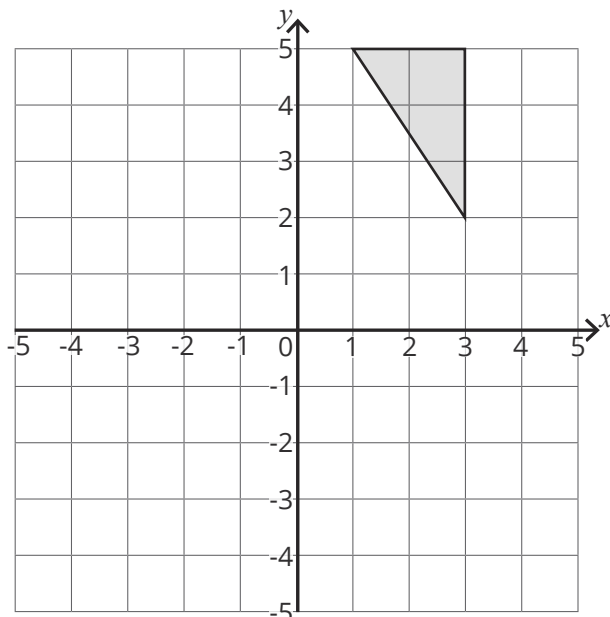
For example:

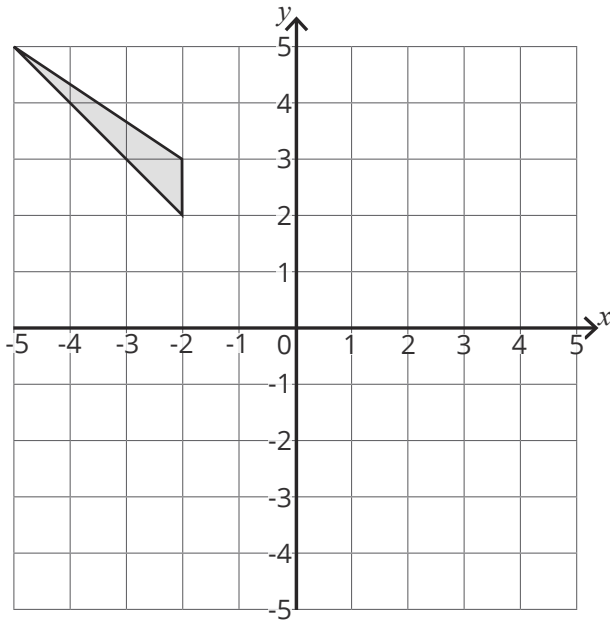Describe, fully, the single transformation that maps triangle A onto triangle B.

This is a rotation by 180° (direction isn't important for a half turn), centre (0, 0).
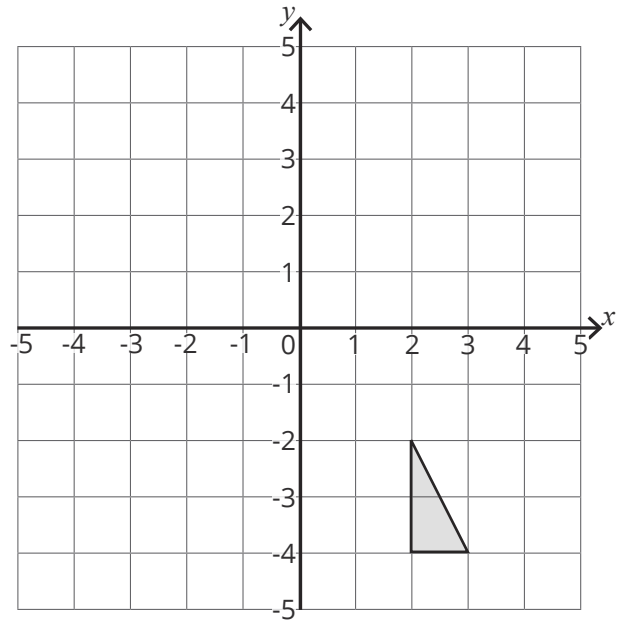
Your Turn

1. Rotate the triangle 90° clockwise about (0, 0).

2. Rotate the triangle 180° about the origin.

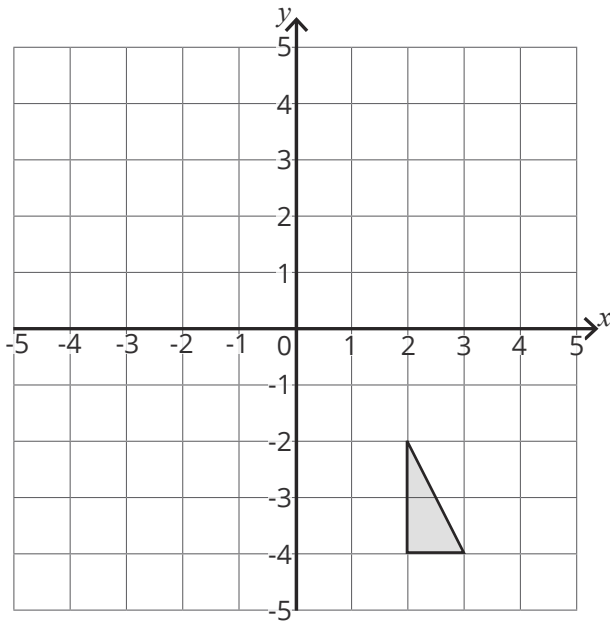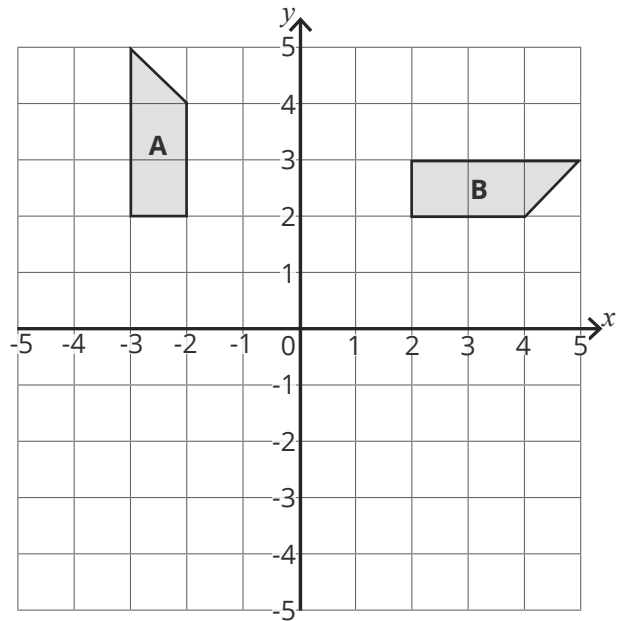3. Rotate the triangle 90° anti-clockwise about (0, 0).

4. Rotate the triangle 180° about (-1, -1).
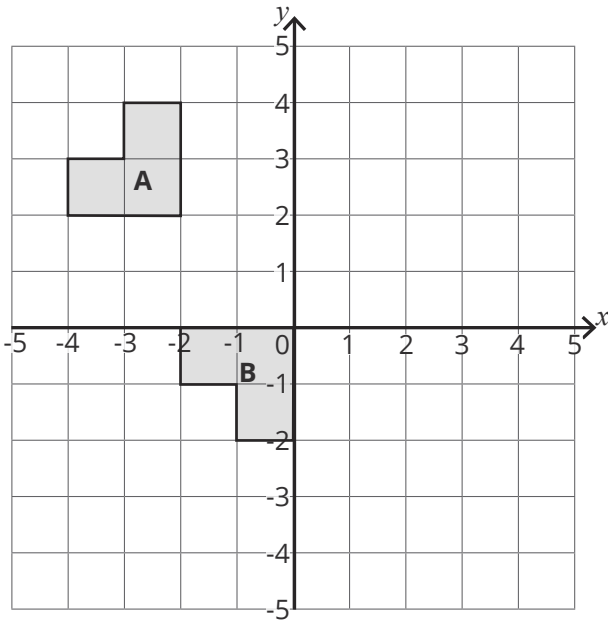

5. Rotate the triangle 90° anti-clockwise about (1, 0).

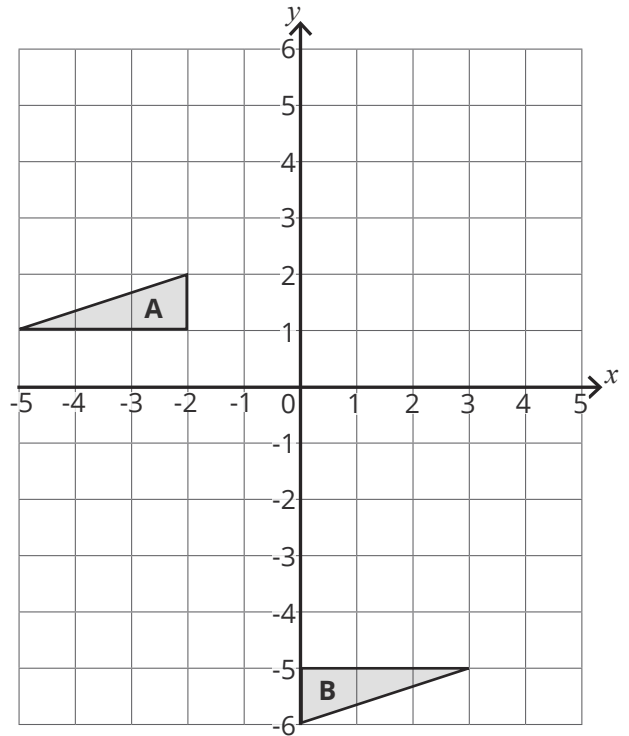6. Describe the single transformation that maps shape A onto shape B.

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

_____

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8. Describe the transformation that maps shape A onto shape B.
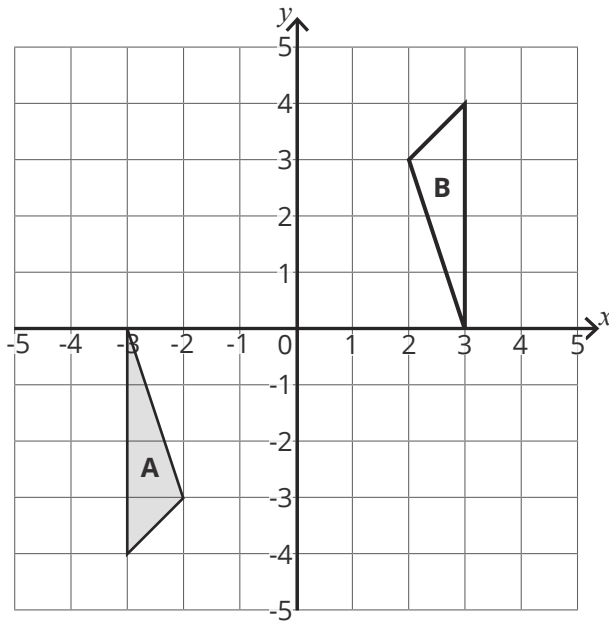

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Rotations **Answers**

You need to be able to rotate a shape and describe a rotation. The three things you need to describe a rotation are:

- The angle of rotation (e.g. 90°)

- The direction or rotation (clockwise or anticlockwise).

- The centre of rotation (this can be found by using a piece of tracing paper and trial and error).
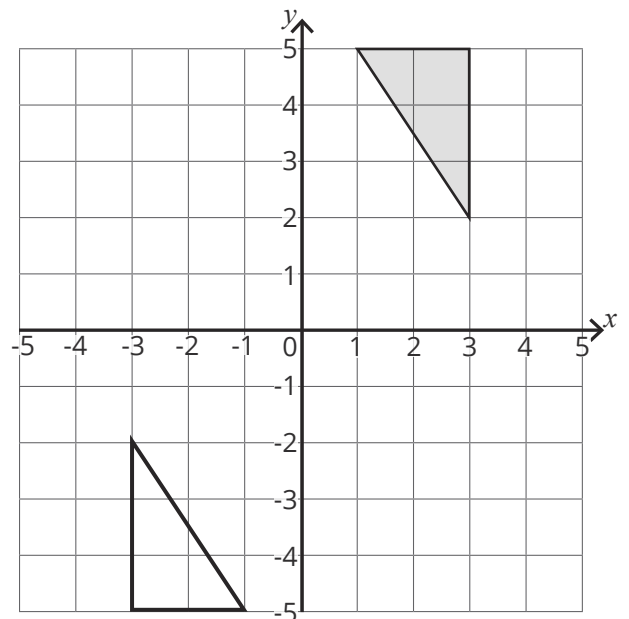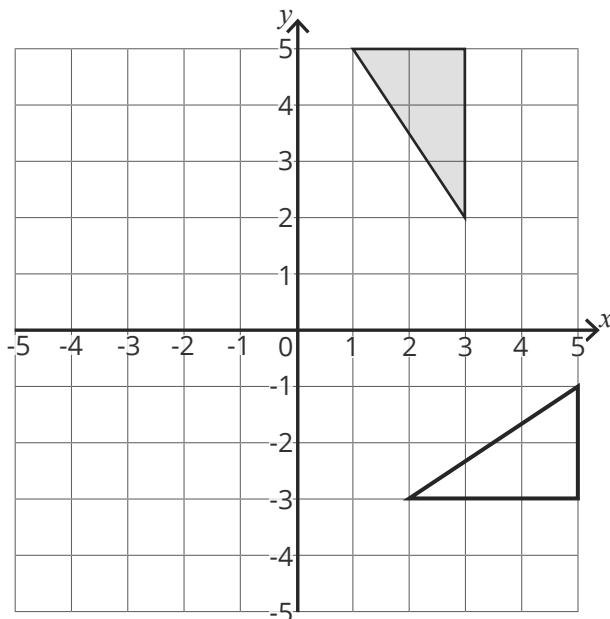
For example:

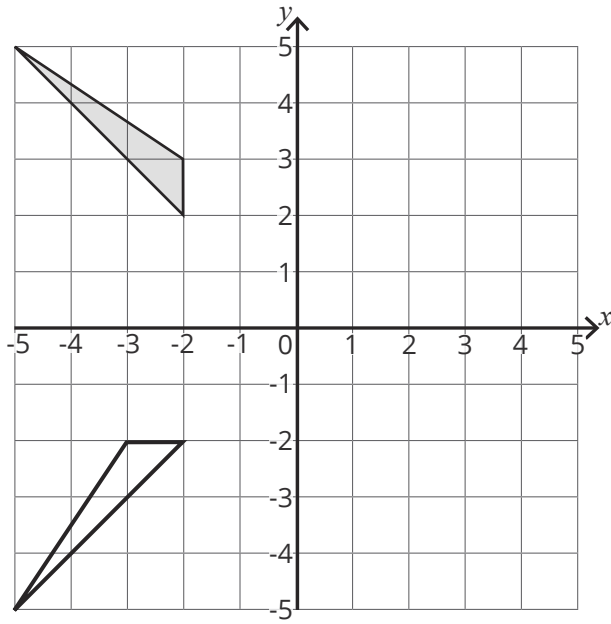Describe, fully, the single transformation that maps triangle A onto triangle B.

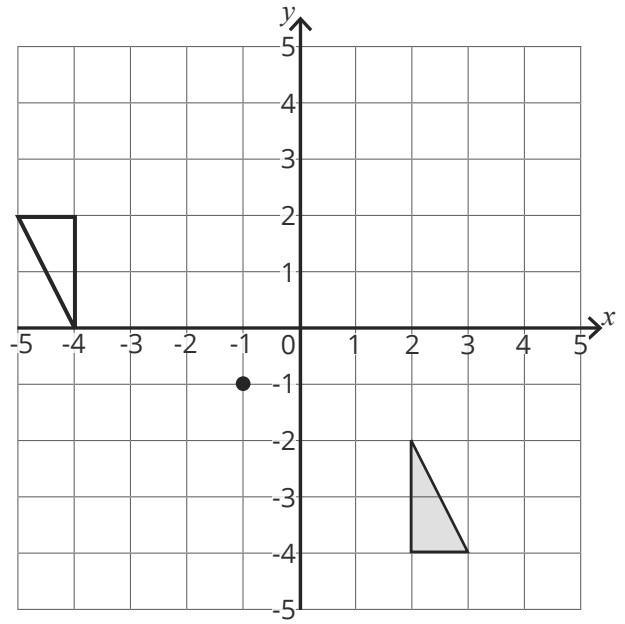This is a rotation by 180° (direction isn't important for a half turn), centre (0, 0).

Your Turn

1. Rotate the triangle 90° clockwise about (0, 0).
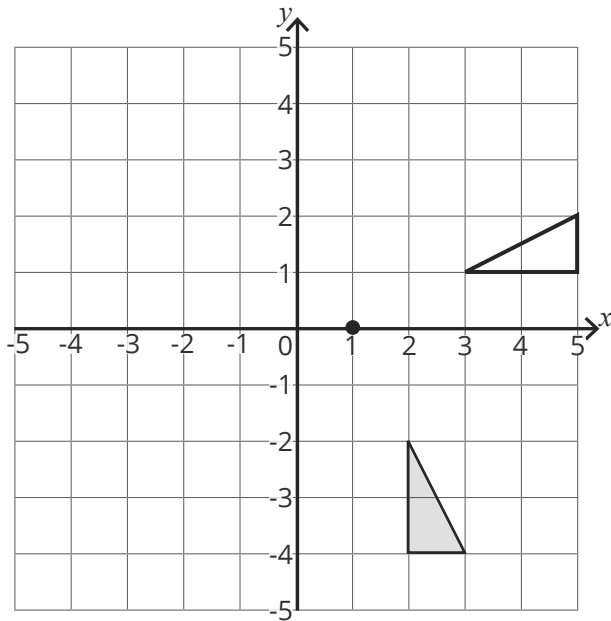
2. Rotate the triangle 180° about the origin.

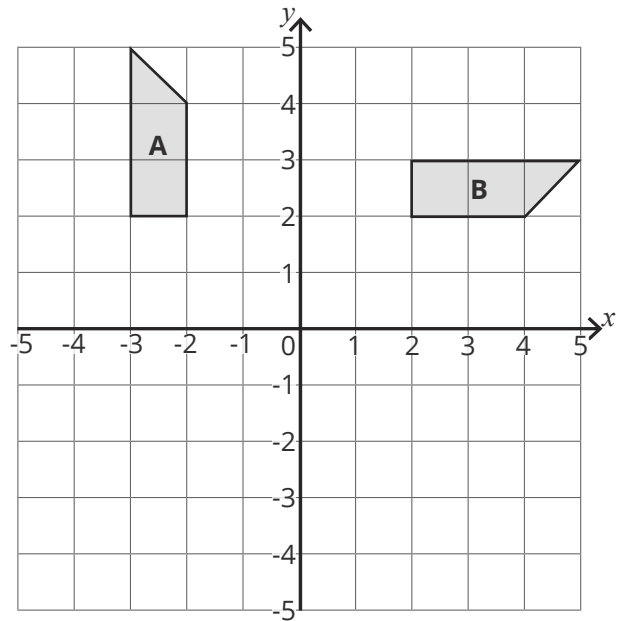3. Rotate the triangle 90° anti-clockwise about (0, 0).

4. Rotate the triangle 180° about (-1, -1).
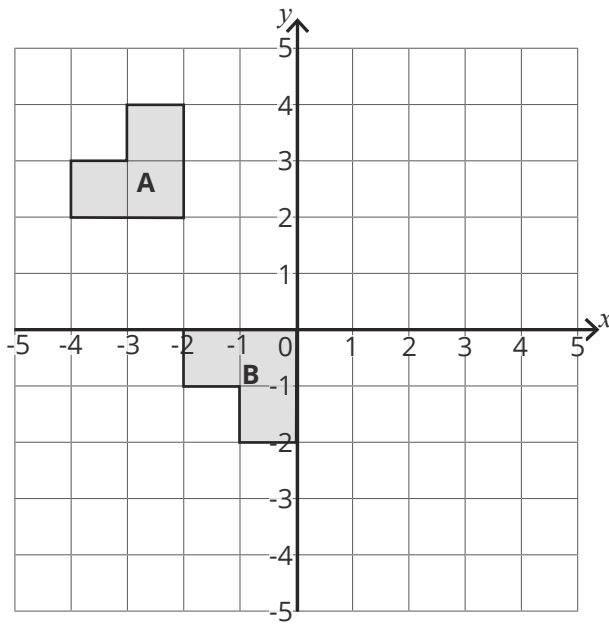

5. Rotate the triangle 90° anti-clockwise about (1, 0).

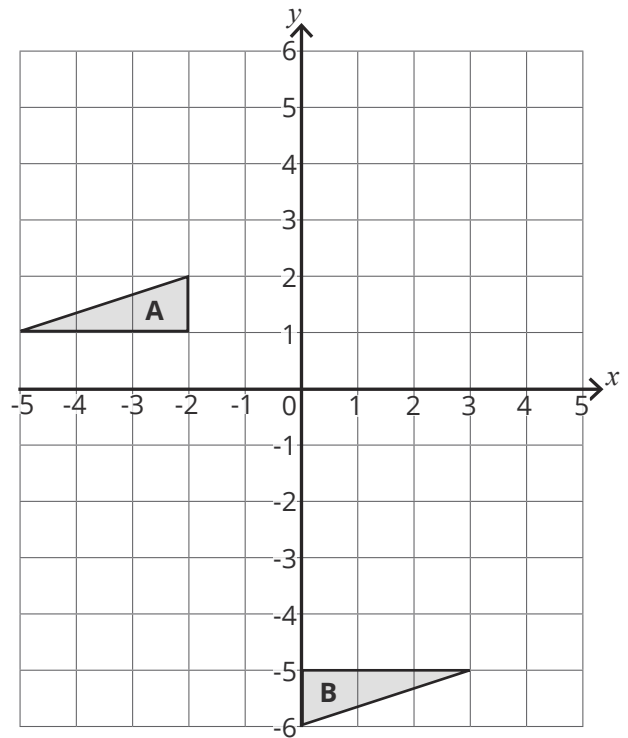6. Describe the single transformation that maps shape A onto shape B.

Rotation, 90° clockwise, about (0, 0).

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

Rotation, 90° anti-clockwise, about (0, 2).

8. Describe the transformation that maps shape A onto shape B.

Rotation, 180° clockwise, about (-1, -2)