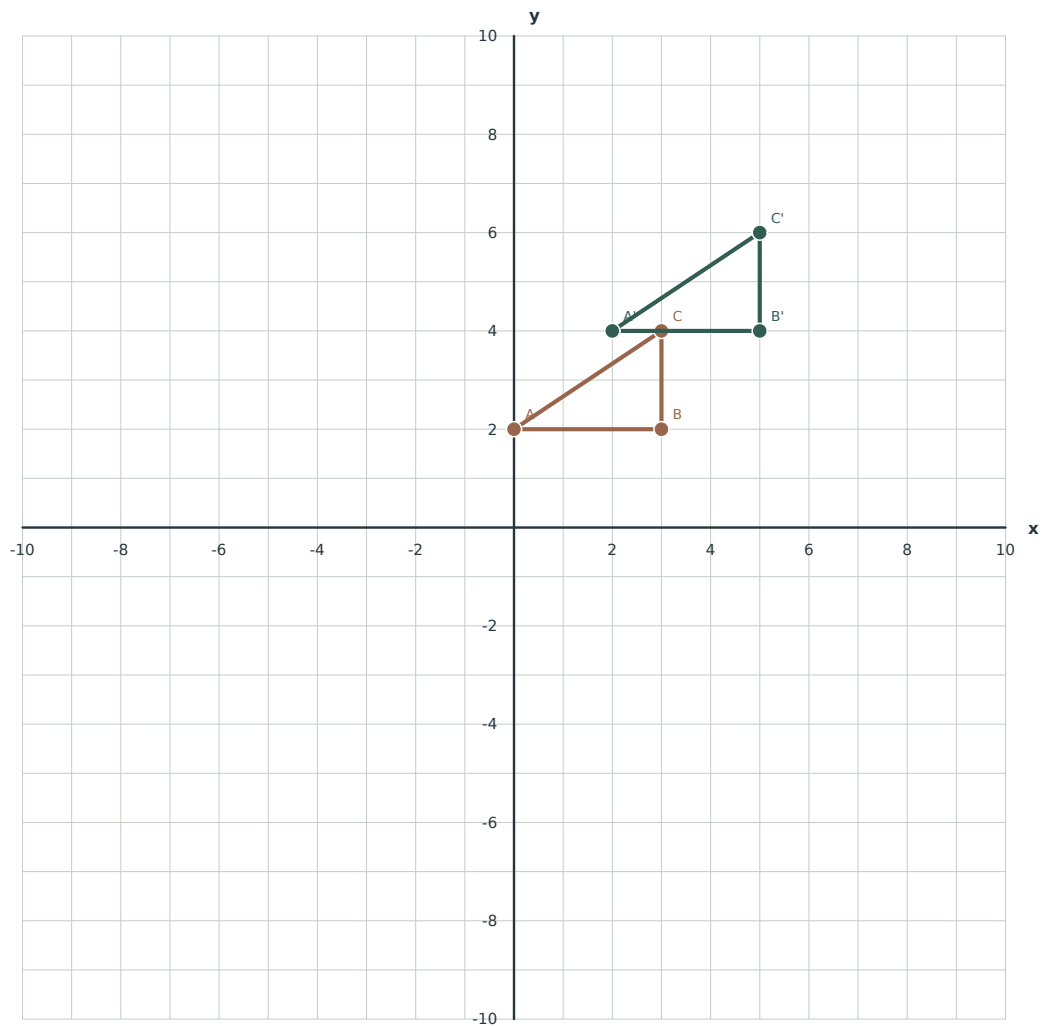


Translate a triangle

Vertices in order: A(0, 2); B(3, 2); C(3, 4).

Translate by (2, 2). Draw and label the image. Check the coordinates of every vertex.

ANSWER / worked construction



Brown: original / Green: transformed image (answer only)

Translate by (2, 2).

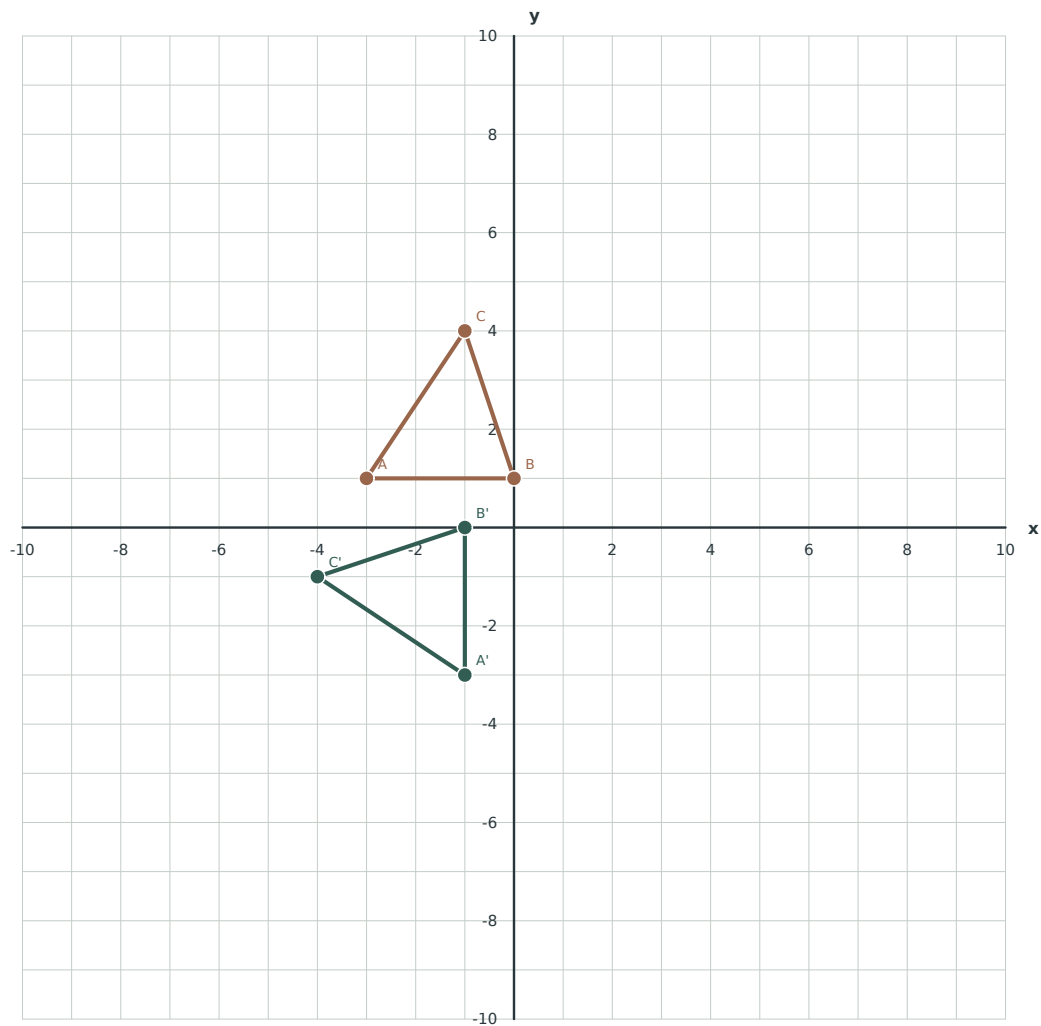
Image vertices: A(2, 4); B(5, 4); C(5, 6).

Rotate a triangle

Vertices in order: A(-3, 1); B(0, 1); C(-1, 4).

Rotate 90 degrees counterclockwise about (0, 0). Draw and label the image. Check the coordinates of every vertex.

ANSWER / worked construction



Brown: original / Green: transformed image (answer only)

Rotate 90 degrees counterclockwise about (0, 0).

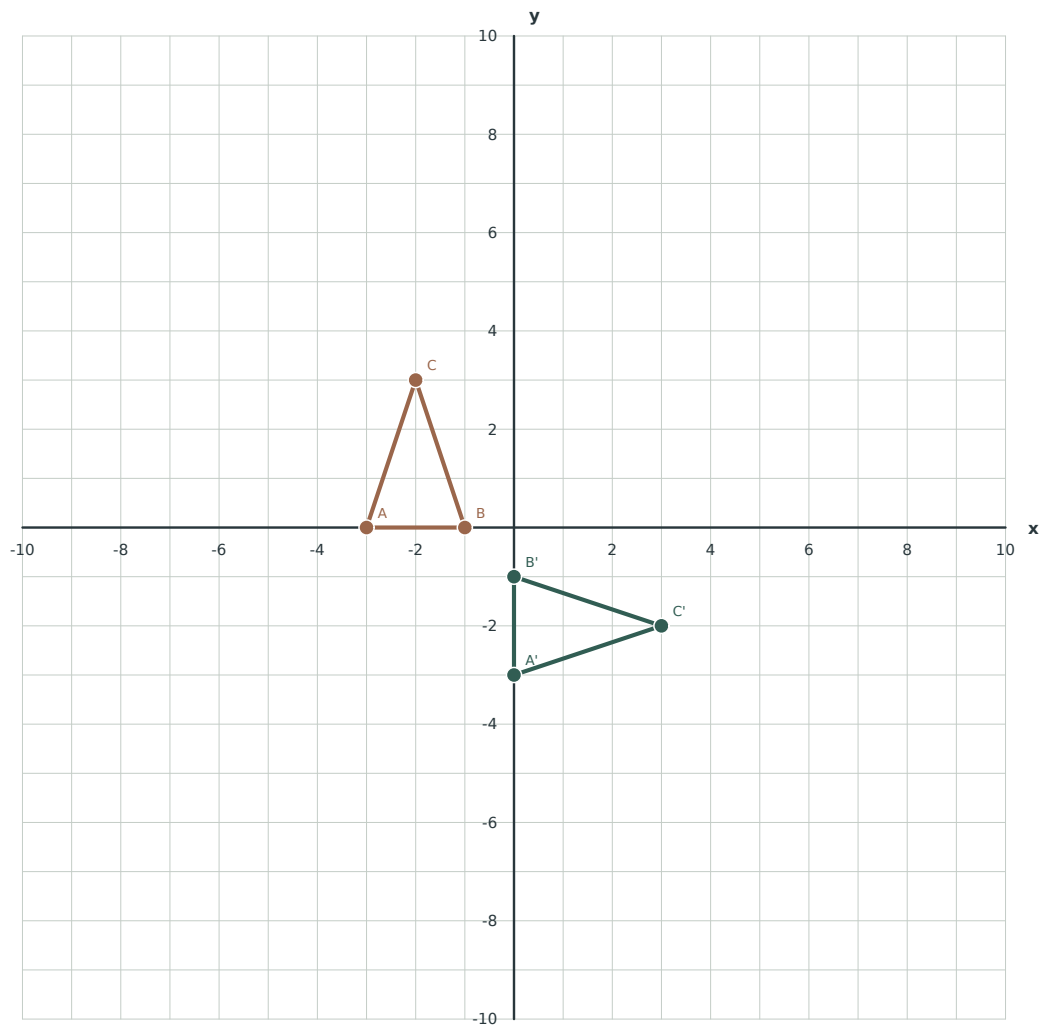
Image vertices: A(-1, -3); B(-1, 0); C(-4, -1).

Reflect across $y=x$

Vertices in order: A(-3, 0); B(-1, 0); C(-2, 3).

Reflect across $y = x$. Draw and label the image. Check the coordinates of every vertex.

ANSWER / worked construction



Brown: original / Green: transformed image (answer only)

Reflect across $y = x$.

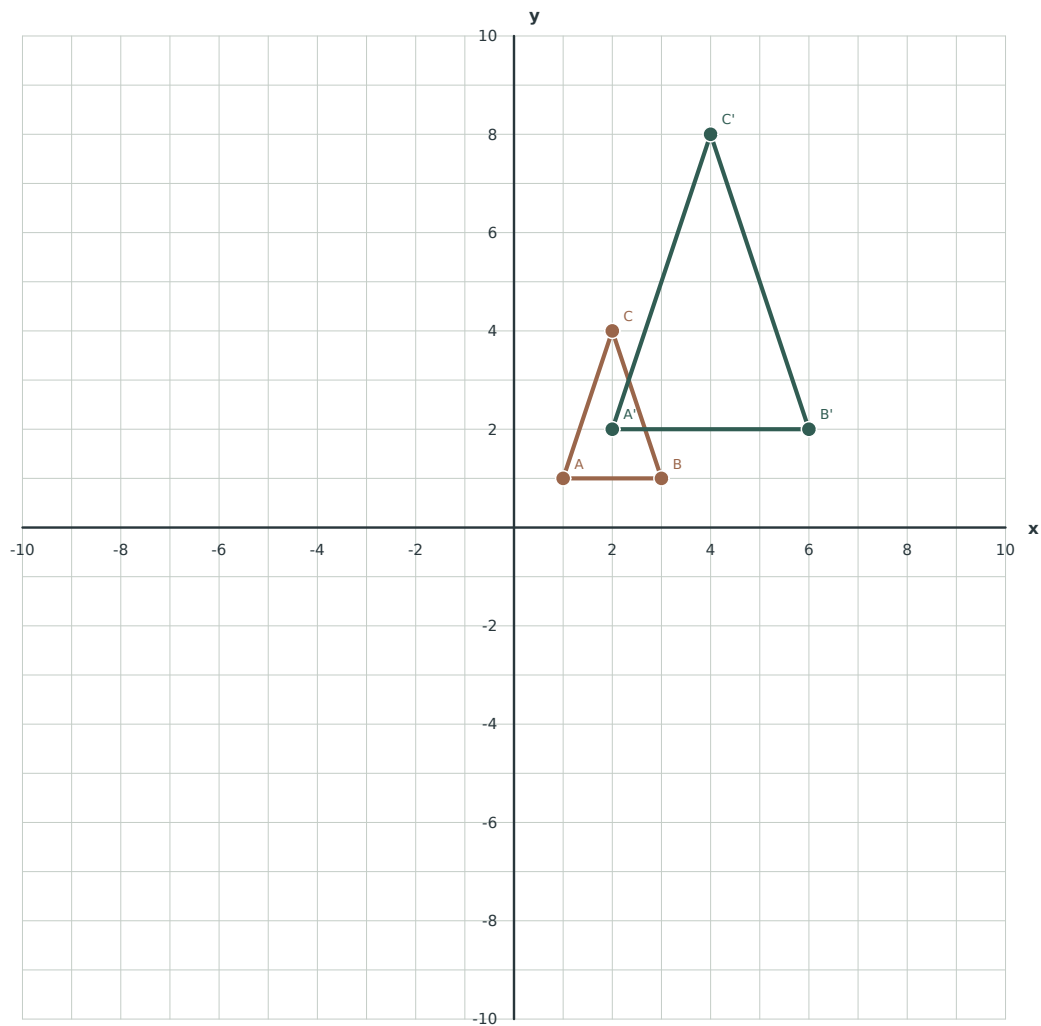
Image vertices: A(0, -3); B(0, -1); C(3, -2).

Dilate a triangle

Vertices in order: A(1, 1); B(3, 1); C(2, 4).

Dilate about (0, 0) by scale factor 2. Draw and label the image. State the length and area ratios.

ANSWER / worked construction



Brown: original / Green: transformed image (answer only)

Dilate about (0, 0) by scale factor 2.

Image vertices: A(2, 2); B(6, 2); C(4, 8).

Length ratio = 2; area ratio = 4. Area: 3 to 12 square units.