

# Mixed Review (Two-Step) — ANSWER KEY

Do the first transformation, then apply the second one to that result. Graph only the final image.

1. Translate 2 units down, then reflect over the line  $y = x$ .

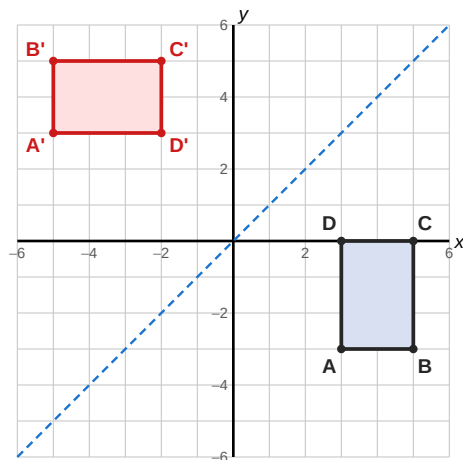


Image coordinates:

A' **(-5, 3)**

B' **(-5, 5)**

C' **(-2, 5)**

D' **(-2, 3)**

Original:

A (3, -3)

B (5, -3)

C (5, 0)

D (3, 0)

2. Reflect over the  $y$ -axis, then rotate  $90^\circ$  clockwise about the origin.

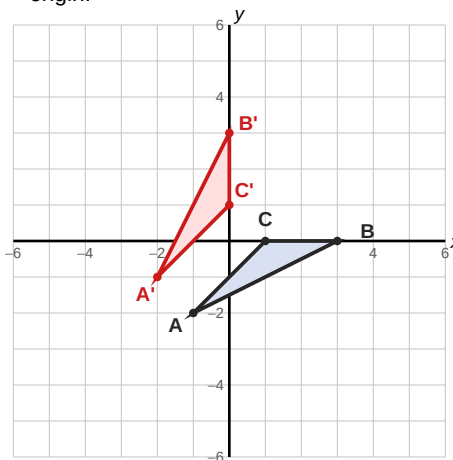


Image coordinates:

A' **(-2, -1)**

B' **(0, 3)**

C' **(0, 1)**

Original:

A (-1, -2)

B (3, 0)

C (1, 0)

3. Rotate  $90^\circ$  counterclockwise about the origin, then translate 1 unit right and 3 units down.

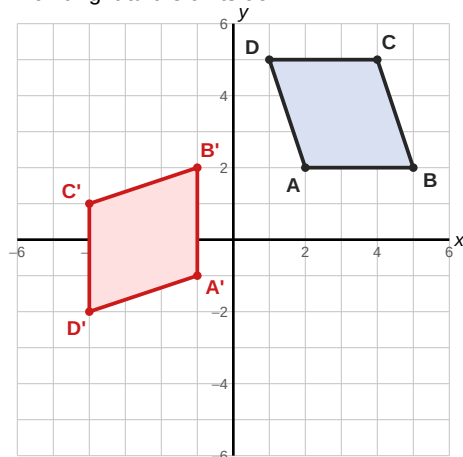


Image coordinates:

A' **(-1, -1)**

B' **(-1, 2)**

C' **(-4, 1)**

D' **(-4, -2)**

Original:

A (2, 2)

B (5, 2)

C (4, 5)

D (1, 5)

4. Translate 2 units left and 1 unit up, then reflect over the  $x$ -axis.

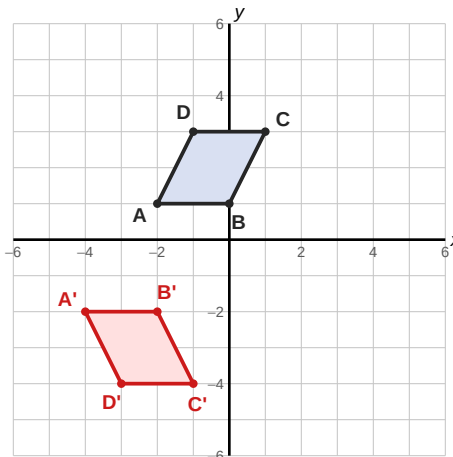


Image coordinates:

A' **(-4, -2)**

B' **(-2, -2)**

C' **(-1, -4)**

D' **(-3, -4)**

Original:

A (-2, 1)

B (0, 1)

C (1, 3)

D (-1, 3)

5. Reflect over the line  $y = x$ , then rotate  $180^\circ$  about the origin.

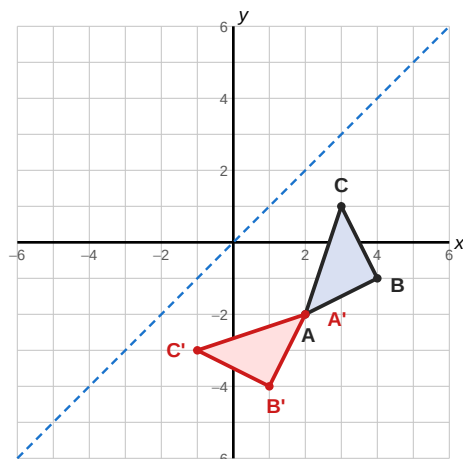


Image coordinates:

A' **(2, -2)**

B' **(1, -4)**

C' **(-1, -3)**

Original:

A (2, -2)

B (4, -1)

C (3, 1)

6. Rotate  $90^\circ$  counterclockwise about the origin, then translate 3 units right.

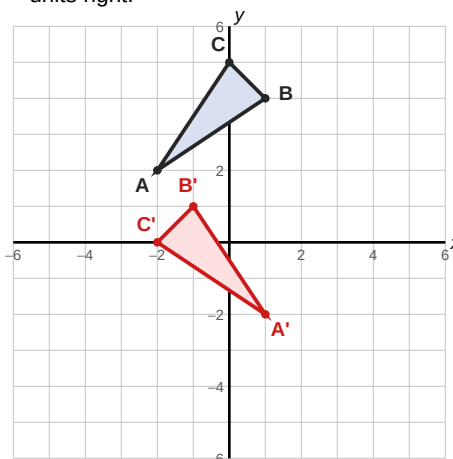


Image coordinates:

A' **(1, -2)**

B' **(-1, 1)**

C' **(-2, 0)**

Original:

A (-2, 2)

B (1, 4)

C (0, 5)