# Quiz Review!
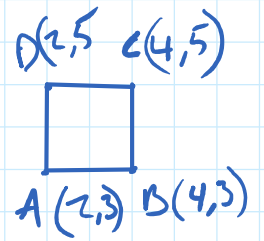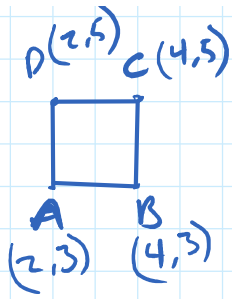
---

Graph the quadrilateral ABCD with vertices A(2, 3), B(4, 3), C(4, 5), D(2, 5), and its image after the translation.

$$\langle 3,2 \rangle \qquad\qquad \langle 4,-2 \rangle$$

D (2,5)  C (4,5)

A        B
(2,3)    (4,3)

D (2,5   C (4,5)

A (2,3)  B (4,3)

(2?)

Find the component form of the vector that translates P(3, 7) to P'.

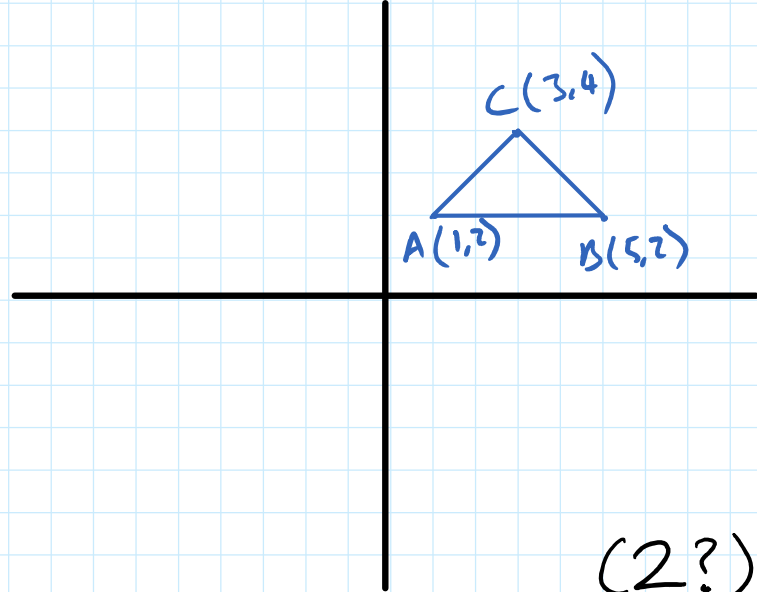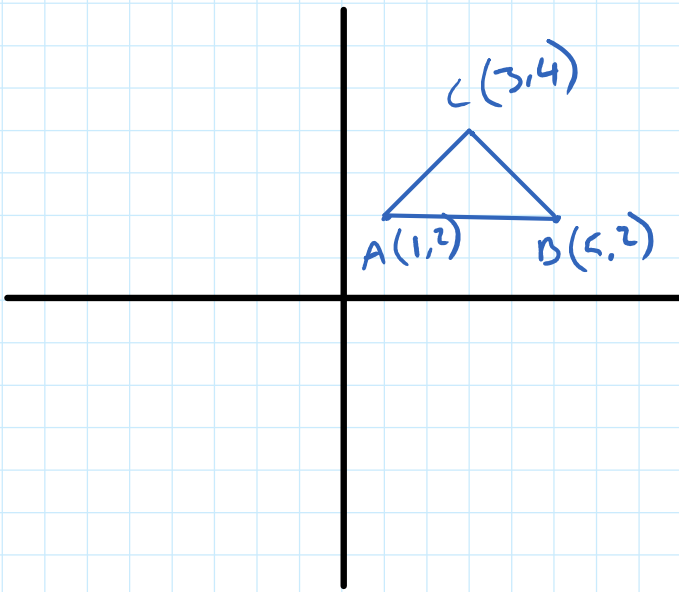P'(1, 6)                    P'(8, -1)

(2?)

Graph the polygon with the given vertices and its image after a
reflection in the given line.

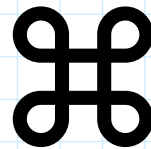A(1, 2), B(5, 2), C(3, 4); y-axis

~~R(0,0), S(3, 4), T(0, 8); X=-1~~

C(3,4)

A(1,2)   B(5,2)

C(3,4)

A(1,2)   B(5,2)

(2?)

Determine whether the figure has rotational symmetry. If so, describe any rotations that map the figure onto itself.
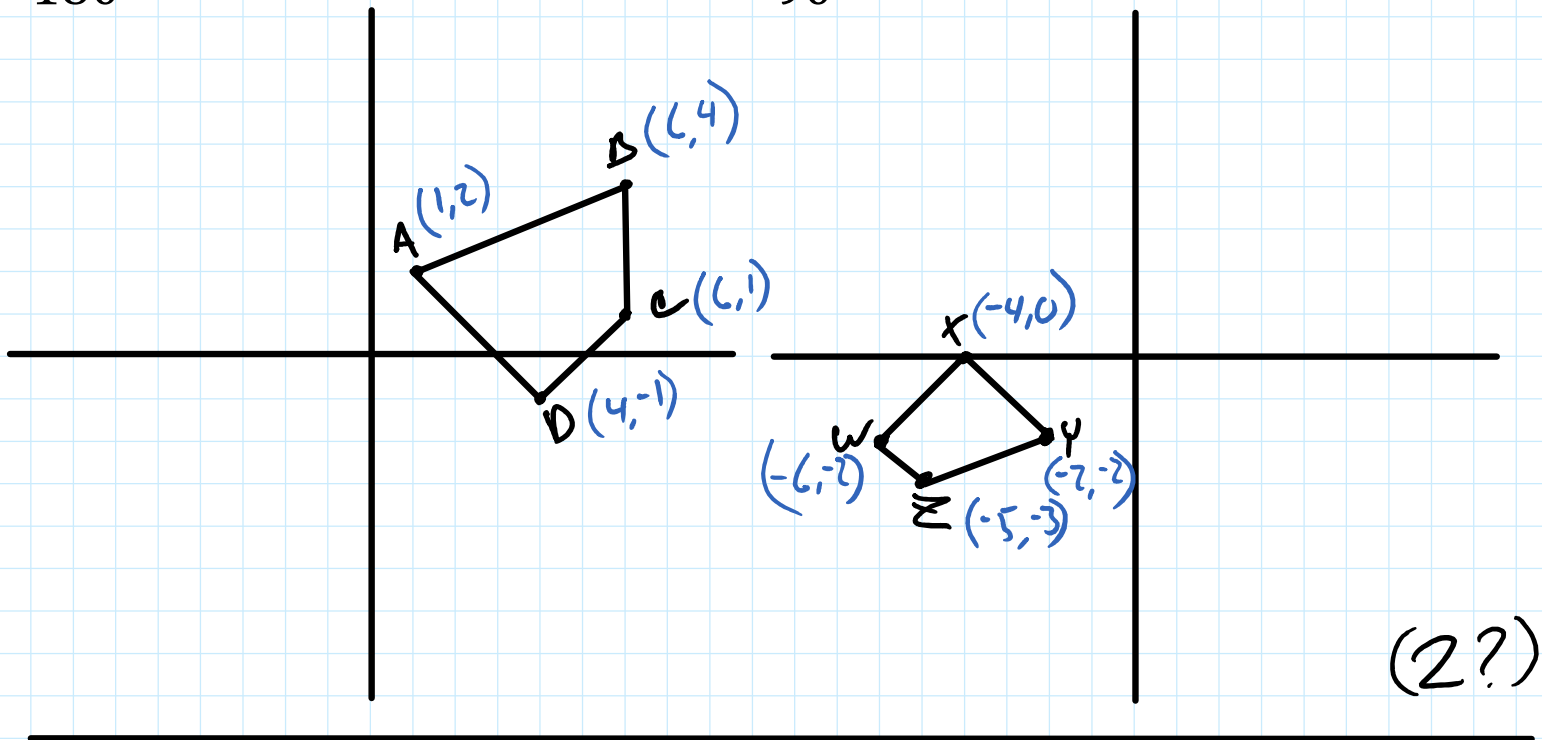
D

⌘

(2?)

Graph the polygon's image after a rotation of the given number of degrees clockwise about the origin.

**180°**

**90°**

B $(6,4)$

A $(1,2)$

C $(6,1)$

D $(4,-1)$

X $(-4,0)$

W $(-6,-2)$

Y $(-2,-2)$

Z $(-5,-3)$

(2?)

10 Total ?'s

Quiz 4.1-4.3 **pg.**
198: 1-17EO, 16

**Coordinate Rules for Reflections**

- If $(a, b)$ is reflected in the $x$-axis, then its image is the point $(a, -b)$.

- If $(a, b)$ is reflected in the $y$-axis, then its image is the point $(-a, b)$.

- If $(a, b)$ is reflected in the line $y = x$, then its image is the point $(b, a)$.

- If $(a, b)$ is reflected in the line $y = -x$, then its image is the point $(-b, -a)$.

**Coordinate Rules for Rotations about the Origin**

# Coordinate Rules for Rotations about the Origin

When a point $(a, b)$ is rotated counterclockwise about the origin, the following are true.

- For a rotation of 90°,
  $(a, b) \rightarrow (-b, a)$.

- For a rotation of 180°,
  $(a, b) \rightarrow (-a, -b)$.

- For a rotation of 270°,
  $(a, b) \rightarrow (b, -a)$.