Do Now:

1. Reflect Point A (-3, 4) over the x- axis.

A'(-3, -4)

2. Translate Point B (2, -3) using the rule $T_{-4,-2}$.

left 4 moving x-value

down 2 moving y-value

B'(-2, -5)

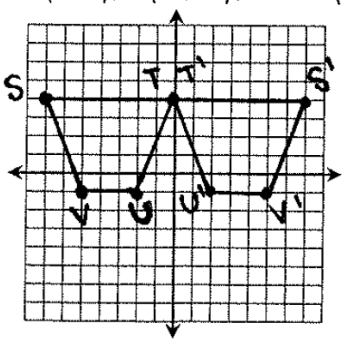
3. Reflect Point C (-8, -3) over the y-axis.

C'(8, -3)

Sep 3-9:31 PM

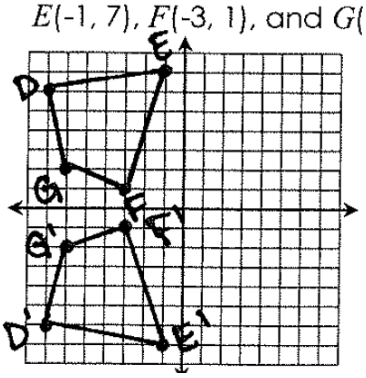
HW Answers

1) Trapezoid $STUV$ with vertices $S(-7, 4)$, $T(0, 4)$, $U(-2, -1)$, and $V(-5, -1)$: **y-axis**



S'(7, 4)
T'(0, 4)
U'(2, -1)
V'(5, -1)

2) Quadrilateral $DEFG$ with vertices $D(-7, 6)$, $E(-1, 7)$, $F(-3, 1)$, and $G(-6, 2)$: **x-axis**



D'(-7, -6)
E'(-1, -7)
F'(-3, -1)
G'(-6, -2)

3) y - axis

4) x - axis

5) x- axis

6) y - axis

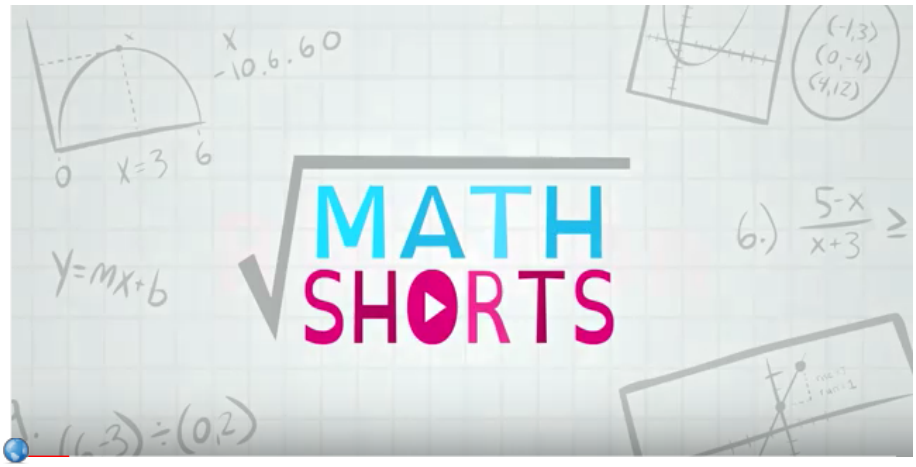
7) (-4, -2)

8) (-6, 2)

9) (5, -4)

10) (9, 12)

Aug 30-12:01 PM



Feb 6-7:00 AM

Rotations

- A center of rotation usually the origin (0,0)

- A clockwise or counterclockwise direction of rotation. Unless otherwise stated, a rotation is in the <u>counterclockwise</u> direction.

- A number of degrees of rotation

  90, 180, 270 or 360 degrees

Sep 3-9:31 PM

Rotation Rules

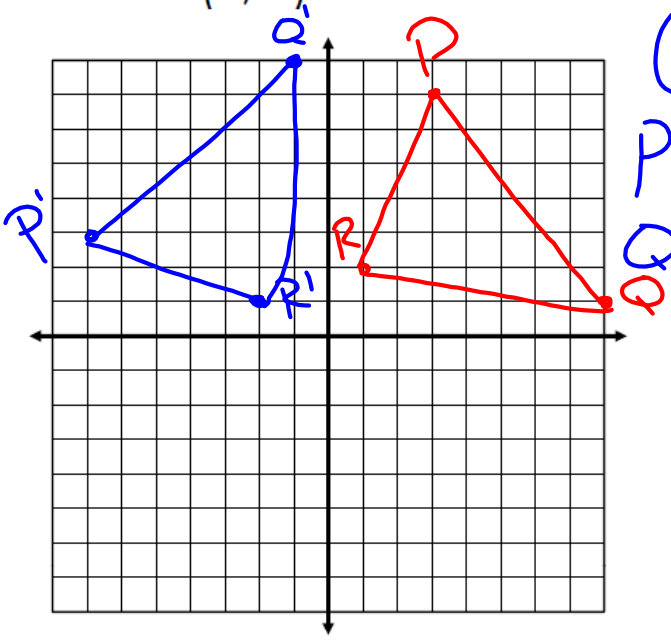
Counterclockwise 270° (x, y) → (y, -x)

Counterclockwise 90° (x, y) → (-y, x)

Counterclockwise 180° (x, y) → (-x, -y)

Sep 3-9:31 PM

1. Triangle PQR with vertices $P(3, 7)$, $Q(8, 1)$, and $R(1, 2)$: **90° counterclockwise**



$(x,y) \to (-y, x)$

$P(3,7) \to P'(-7, 3)$

$Q(8,1) \to Q'(-1, 8)$

$R(1,2) \to R'(-2, 1)$

P' (____, ____)

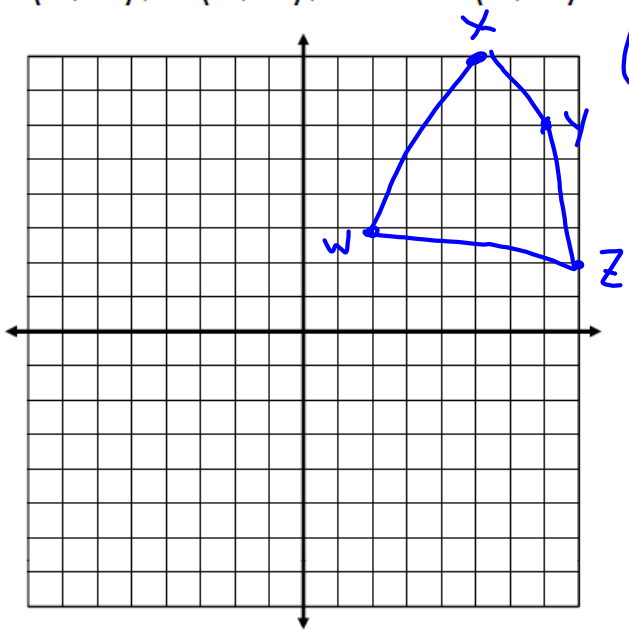
Q' (____, ____)

R' (____, ____)

Feb 6-1:31 PM

2. Quadrilateral $WXYZ$ with vertices $W(2, 3)$, $X(5, 8)$, $Y(7, 6)$, and $Z(8, 2)$: **180°**

$(x, y) \rightarrow (-x, -y)$



W' (-2, -3)

X' (-5, -8)

Y' (-7, -6)

Z' (-8, -2)

Feb 6-1:32 PM

BigQ