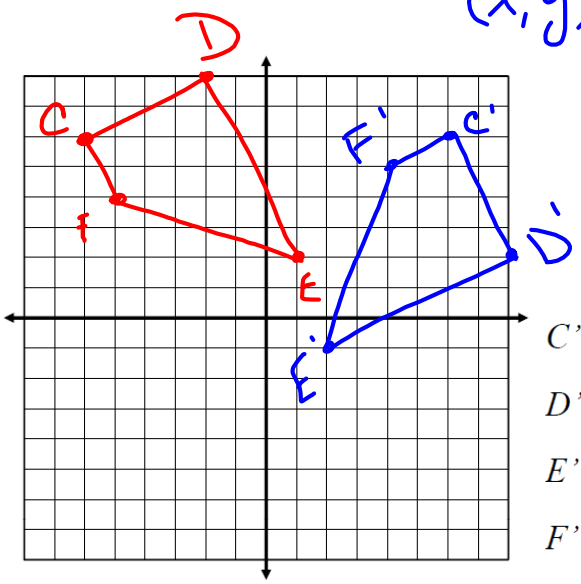
Do Now:

Trapezoid CDEF with vertices C(-6, 6), D(-2, 8), E (1, 2) and F (-5, 4). Rotate 270° counterclockwise

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

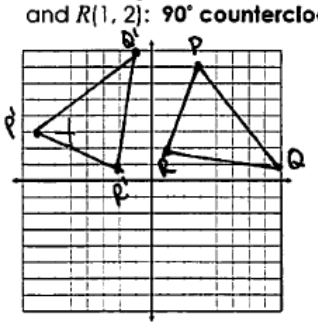


C' (6, 6)
D' (8, 2)
E' (2, -1)
F' (4, 5)

Sep 3-9:31 PM

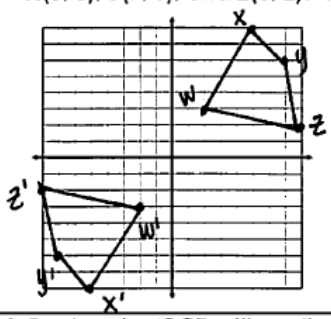
HW Answers

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



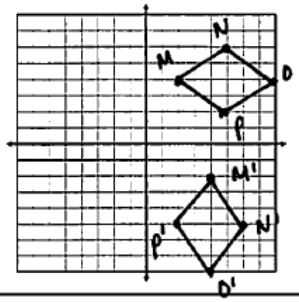
P' (-7, 3)
Q' (-1, 8)
R' (-2, 1)

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



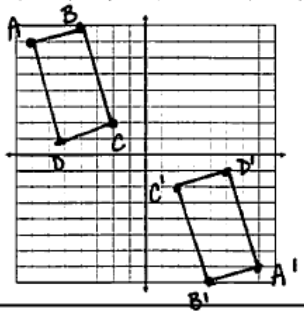
W' (-2, -3)
X' (-5, -8)
Y' (-7, -6)
Z' (-8, -2)

3. Rhombus $MNOP$ with vertices $M(2, 4)$, $N(5, 6)$, $O(8, 4)$, and $P(5, 2)$: **270° counterclockwise**



M' (4, -2)
N' (6, -5)
O' (4, -8)
P' (2, -5)

4. Rectangle $ABCD$ with vertices $A(-7, 7)$, $B(-4, 8)$, $C(-2, 2)$, and $D(-5, 1)$: **180°**



A' (7, -7)
B' (4, -8)
C' (2, -2)
D' (5, -1)

Aug 30-12:01 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

Finding Image Points for Rotations

1) What is A' when point A (-3, 4) is rotated 90° counterclockwise?

$(x,y) \to (-y,x)$ $A(-3,4) \to A'(-4,-3)$

2) What is F' when point F (7, -3) is rotated 270° counterclockwise?

$(x,y) \to (y,-x)$ $F(7,-3) \to F'(-3,-7)$

3) What is W' when point W (-2, -5) is rotated 180° counterclockwise?

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

$W(-2,-5) \to W'(2,5)$

Feb 7-6:44 AM

Writing Rotation Rules given the pre-image and image points

4) P (-4, 5) → P' (4, -5)

180° counterclockwise

5) X (2, -3) → X' (3, 2)

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

90° Counterclockwise

6) Q (-5, -3) → Q' (-3, 5)

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

270° Counterclockwise

Feb 7-6:46 AM

BigQ