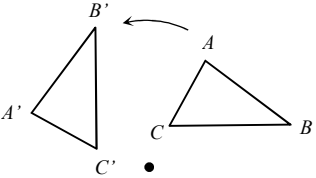
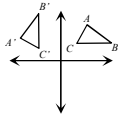
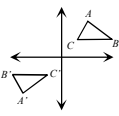
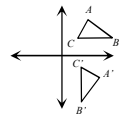
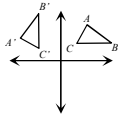
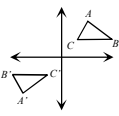
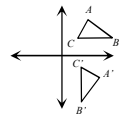
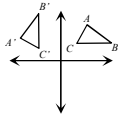
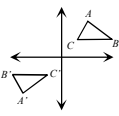
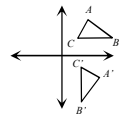


Name: _____

Date: _____

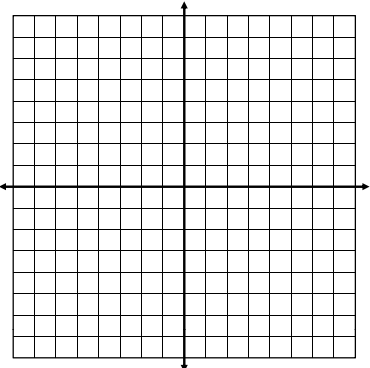
Topic: _____

Class: _____

Main Ideas/Questions	Notes/Examples									
<h1 style="text-align: center;">ROTATION</h1> 	<ul style="list-style-type: none"> A _____ around a fixed point called the center of rotation. The figure rotates at a specific _____ and _____. Rotations result in _____. <p style="text-align: center;">Rules for rotating COUNTERCLOCKWISE about the ORIGIN</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td data-bbox="440 611 630 741">90°</td> <td data-bbox="630 611 894 741">  </td> <td data-bbox="894 611 1528 741"></td> </tr> <tr> <td data-bbox="440 741 630 871">180°</td> <td data-bbox="630 741 894 871">  </td> <td data-bbox="894 741 1528 871"></td> </tr> <tr> <td data-bbox="440 871 630 1001">270°</td> <td data-bbox="630 871 894 1001">  </td> <td data-bbox="894 871 1528 1001"></td> </tr> </table>	90°			180°			270°		
90°										
180°										
270°										

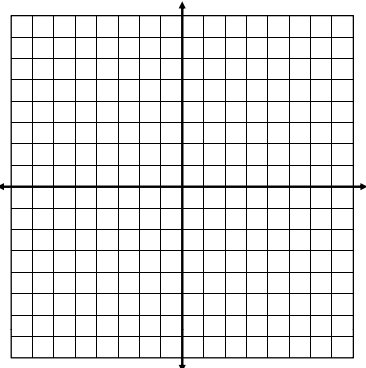
Practical Graph and label each figure and its image under the given rotation. Give the new coordinates.

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



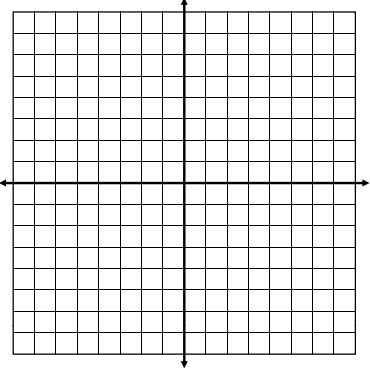
$P'(\underline{\quad}, \underline{\quad})$
 $Q'(\underline{\quad}, \underline{\quad})$
 $R'(\underline{\quad}, \underline{\quad})$

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



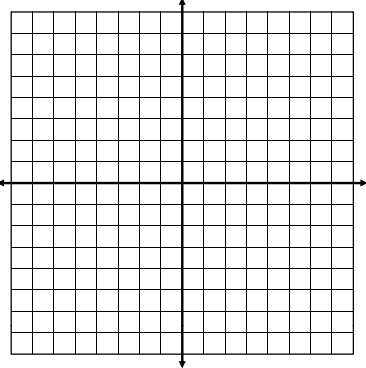
$W'(\underline{\quad}, \underline{\quad})$
 $X'(\underline{\quad}, \underline{\quad})$
 $Y'(\underline{\quad}, \underline{\quad})$
 $Z'(\underline{\quad}, \underline{\quad})$

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



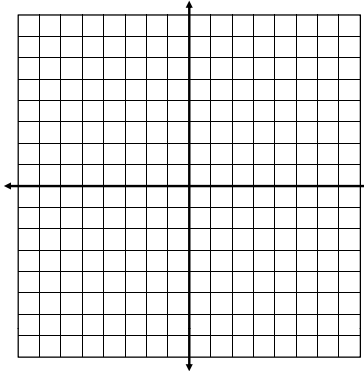
$M'(\underline{\quad}, \underline{\quad})$
 $N'(\underline{\quad}, \underline{\quad})$
 $O'(\underline{\quad}, \underline{\quad})$
 $P'(\underline{\quad}, \underline{\quad})$

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



$A'(\underline{\quad}, \underline{\quad})$
 $B'(\underline{\quad}, \underline{\quad})$
 $C'(\underline{\quad}, \underline{\quad})$
 $D'(\underline{\quad}, \underline{\quad})$

5. Trapezoid $RSTU$ with vertices $R(3, -1)$, $S(5, -1)$, $T(7, -6)$, and $U(1, -6)$: **90° counterclockwise**



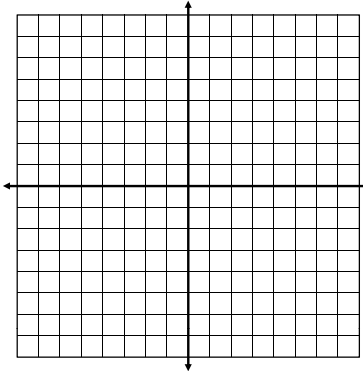
R' (____, ____)

S' (____, ____)

T' (____, ____)

U' (____, ____)

6. Triangle CDE with vertices $C(-8, -1)$, $D(0, -5)$, and $E(-7, -6)$: **270° counterclockwise**

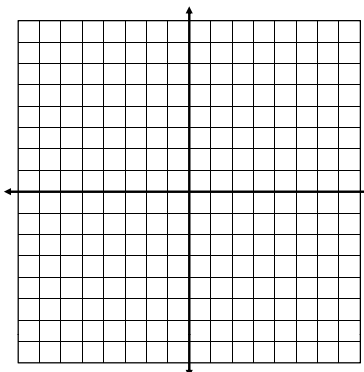


C' (____, ____)

D' (____, ____)

E' (____, ____)

7. Parallelogram $JKLM$ with vertices $J(3, -2)$, $K(7, 0)$, $L(6, -5)$, and $M(2, -7)$: **180°**



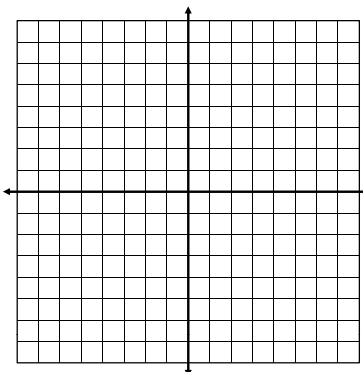
J' (____, ____)

K' (____, ____)

L' (____, ____)

M' (____, ____)

8. Square $FGHI$ with vertices $F(-5, 7)$, $G(0, 6)$, $H(-1, 1)$, and $I(-6, 2)$: **270° counterclockwise**



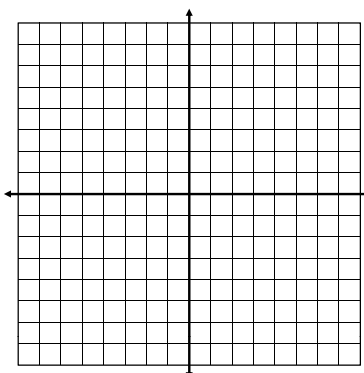
F' (____, ____)

G' (____, ____)

H' (____, ____)

I' (____, ____)

9. Triangle TUV with vertices $T(-4, 0)$, $U(-1, -2)$, and $V(-8, -7)$: **90° counterclockwise**

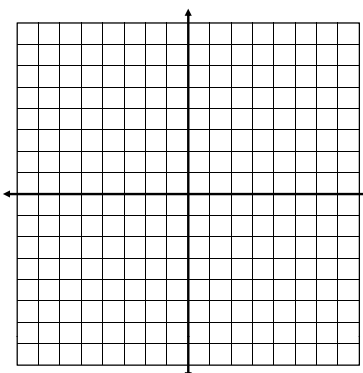


T' (____, ____)

U' (____, ____)

V' (____, ____)

10. Quadrilateral $BCDE$ with vertices $B(-4, -2)$, $C(-1, -1)$, $D(-3, -7)$, and $E(-8, -8)$: **180°**



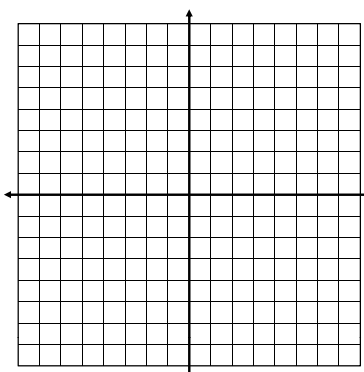
B' (____, ____)

C' (____, ____)

D' (____, ____)

E' (____, ____)

11. Trapezoid $EFGH$ with vertices $E(2, -1)$, $F(6, -1)$, $G(6, -4)$, and $H(2, -7)$: **270° counterclockwise**



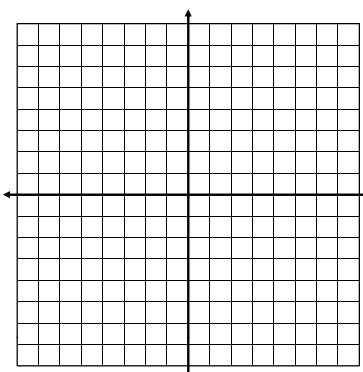
E' (____, ____)

F' (____, ____)

G' (____, ____)

H' (____, ____)

12. Rhombus $QRST$ with vertices $Q(-6, 7)$, $R(0, 8)$, $S(-1, 2)$, and $T(-7, 1)$: **90° counterclockwise**



Q' (____, ____)

R' (____, ____)

S' (____, ____)

T' (____, ____)