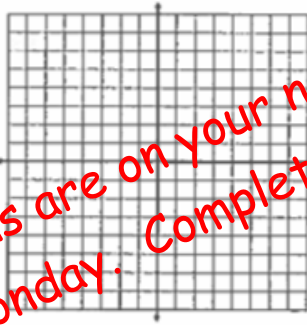


Reflect

3. Triangle PQR with vertices $P(-8, -6)$, $Q(-5, -2)$, and $R(2, -1)$ in the x -axis.



P' ()
 Q' ()
 R' ()

front

These problems are on your notes page from Monday. Complete on the page.

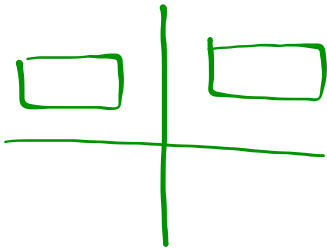
Translate

4. Rhombus $CDEF$ with vertices $C(-6, 6)$, $D(-2, 7)$, $E(-3, 3)$, and $F(-7, 2)$: $(x, y) \rightarrow (x + 9, y - 4)$



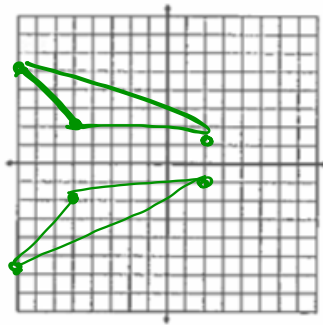
C' ()
 D' ()
 E' ()
 F' ()

back



Reflect

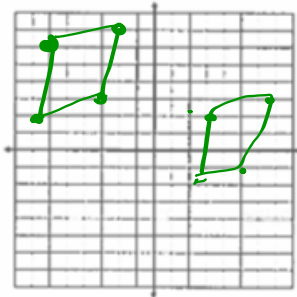
3. Triangle PQR with vertices $P(-8, -6)$, $Q(-5, -2)$, and $R(2, -1)$ in the x -axis.



$P(-8, -6)$
 $Q(-5, -2)$
 $R(2, -1)$

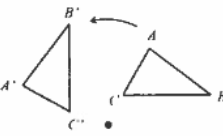



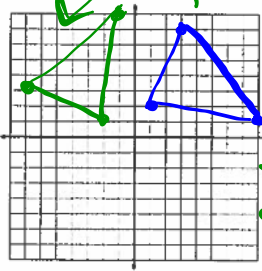
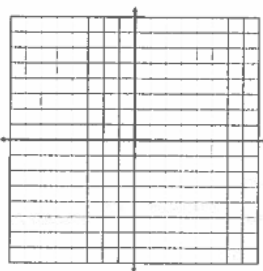
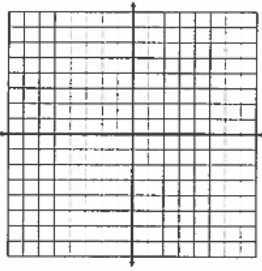
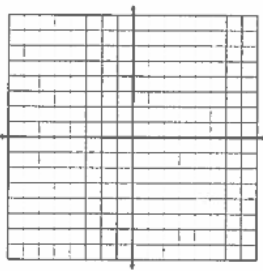
Translate

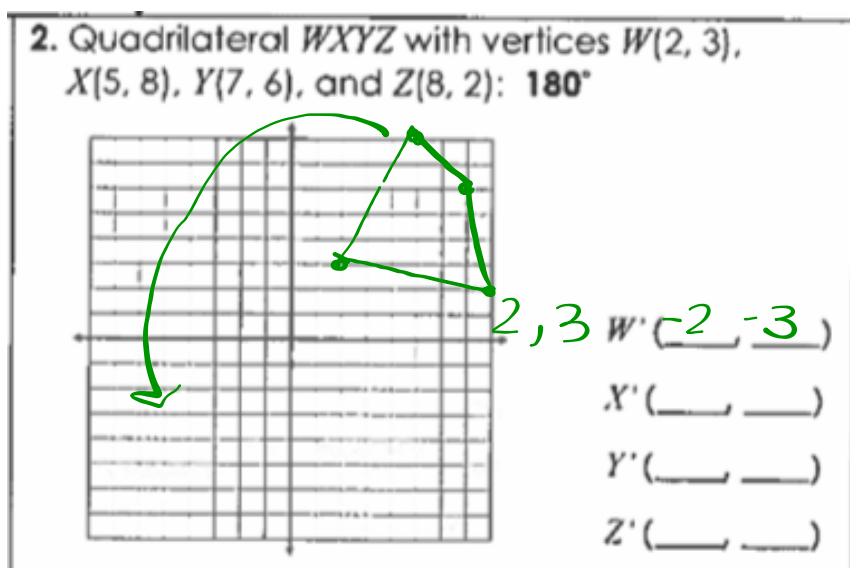
4. Rhombus $CDEF$ with vertices $C(-6, 6)$, $D(-2, 7)$, $E(-3, 3)$, and $F(-7, 2)$: $(x, y) \rightarrow (x + 9, y - 4)$



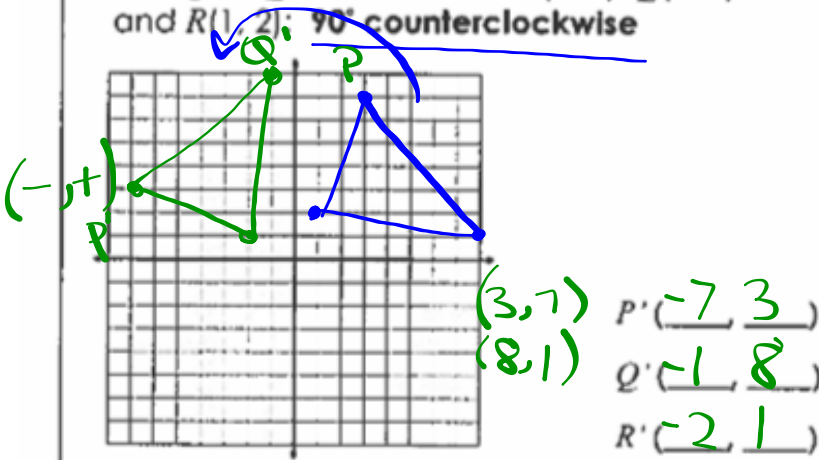
$C'(3, 2)$
 $D'(7, 3)$
 $E'(6, -1)$
 $F'(2, -2)$

∴

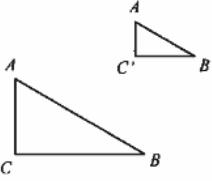
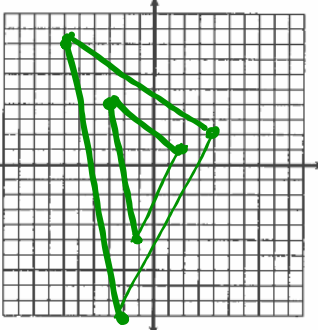
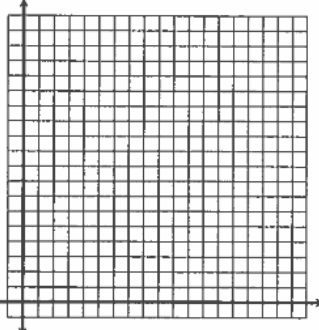
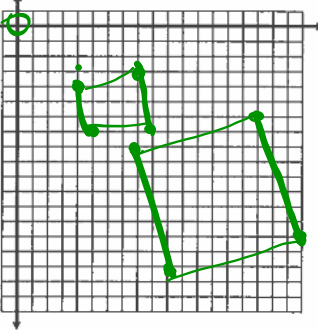
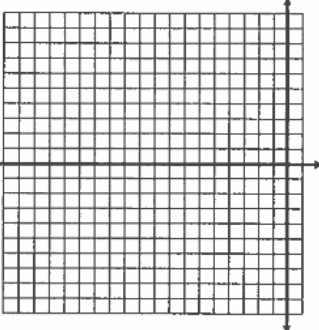
| | | | |
|---|--|---|-------------------------------|
| Topic: | | Class: | |
| Main Ideas/Questions ROTATION  | Notes/Examples <ul style="list-style-type: none"> A <u>turn</u> around a fixed point called the center of rotation. The figure rotates at a specific <u>angle</u> and <u>direction</u>. Rotations result in <u>cong</u> <u>poly</u>. | | |
| | Rules for rotating COUNTERCLOCKWISE about the ORIGIN | | |
| | 90° |  | $(x, y) \rightarrow (-y, x)$ |
| | 180° |  | $(x, y) \rightarrow (-x, -y)$ |
| | 270° |  | $(x, y) \rightarrow (y, -x)$ |
| 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 | | 2. Quadrilateral WXYZ with vertices W(2, 3), X(5, 8), Y(7, 6), and Z(8, 2): 180° | |
|  | |  | |
| <p>3,7 P' (-7, 3) 8,1 Q' (-1, 8) 1,2 R' (-2, 1)</p> | | <p>W' (____) X' (____) Y' (____) Z' (____)</p> | |
| 3. Rhombus MNOP with vertices M(2, 4), N(5, 6), O(8, 4), and P(5, 2): 270° counterclockwise | | 4. Rectangle ABCD with vertices A(-7, 7), B(-4, 8), C(-2, 2), and D(-5, 1): 180° | |
|  | |  | |
| <p>M' (____) N' (____) O' (____) P' (____)</p> | | <p>A' (____) B' (____) C' (____) D' (____)</p> | |

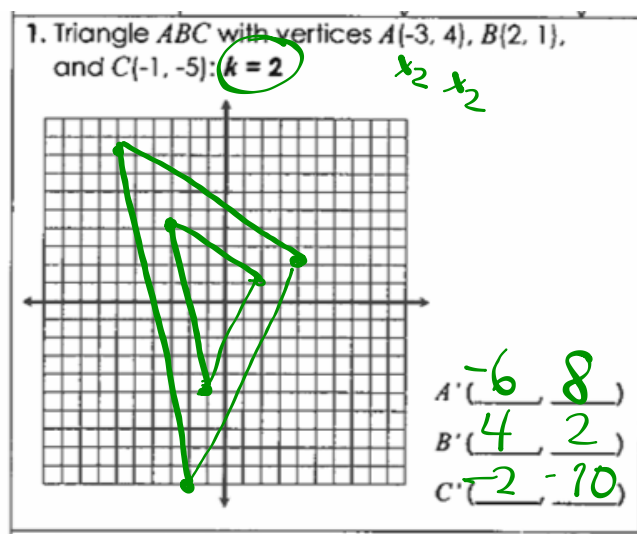


1. Triangle PQR with vertices $P(3, 7)$, $Q(8, 1)$, and $R(1, 2)$; 90° counterclockwise

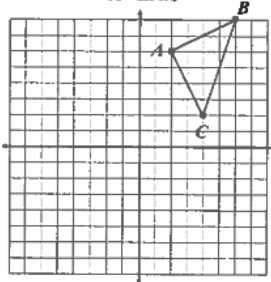
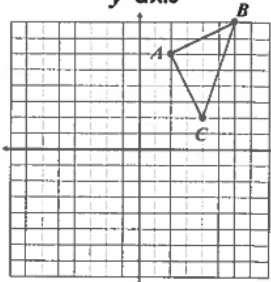
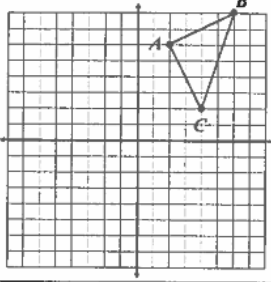
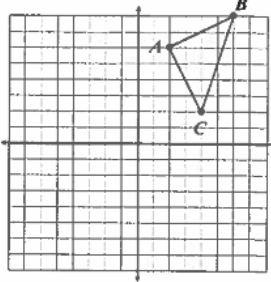
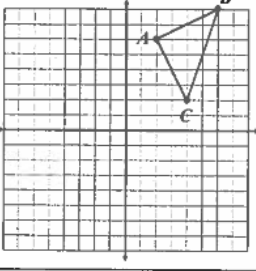
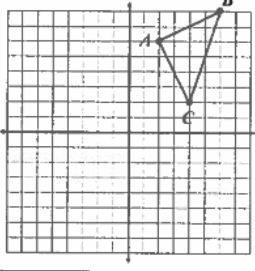
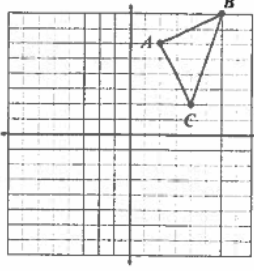
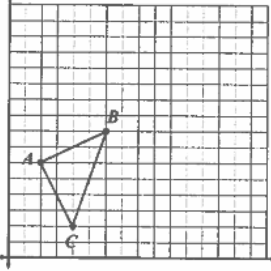
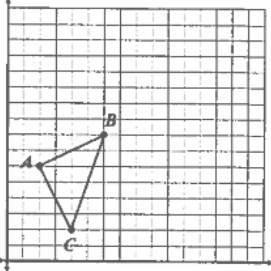


2. Rhombus $MNOP$ with vertices $M(0, 4)$, $N(5, 4)$, $O(5, 0)$, and $P(0, 0)$

| Main Ideas/Questions | Notes/Examples |
|---|--|
| <h2 style="margin: 0;">Dilation</h2>  | <ul style="list-style-type: none"> • The enlargement or reduction of a figure. • The scale factor indicates how much the figure will enlarge or reduce. • Variable for scale factor: k <ul style="list-style-type: none"> > When $k = \frac{x}{y}$ the dilation is an enlargement. > When $k = \frac{y}{x}$ the dilation is a reduction. • Dilations result in similar polygon! |
| <p>Practical Graph and label each figure and its image under the given dilation. Give the new coordinates.</p> | |
| <p>1. Triangle ABC with vertices $A(-3, 4)$, $B(2, 1)$, and $C(-1, -5)$: $k = 2$</p>  <p style="margin-left: 20px;"> $A'(-6, 8)$ $B'(4, 2)$ $C'(-2, -10)$ </p> | <p>2. Parallelogram $PQRS$ with vertices $P(2, 3)$, $Q(4, 3)$, $R(3, 1)$, and $S(1, 1)$: $k = 4$</p>  <p style="margin-left: 20px;"> $P'(\underline{\quad}, \underline{\quad})$ $Q'(\underline{\quad}, \underline{\quad})$ $R'(\underline{\quad}, \underline{\quad})$ $S'(\underline{\quad}, \underline{\quad})$ </p> |
| <p>3. Square $EFGH$ with vertices $E(8, -8)$, $F(16, -6)$, $G(18, -14)$, and $H(10, -16)$: $k = 1/2$</p>  <p style="margin-left: 20px;"> $E'(4, -4)$ $F'(8, -3)$ $G'(9, -7)$ $H'(5, -8)$ </p> | <p>4. Trapezoid $TUVW$ with vertices $T(-18, 3)$, $U(0, 9)$, $V(6, -6)$, and $W(-15, -9)$: $k = 1/3$</p>  <p style="margin-left: 20px;"> $T'(\underline{\quad}, \underline{\quad})$ $U'(\underline{\quad}, \underline{\quad})$ $V'(\underline{\quad}, \underline{\quad})$ $W'(\underline{\quad}, \underline{\quad})$ </p> |



Graded classwork.

| TRANSFORMATIONS | | | |
|--------------------|--|---|---|
| REFLECTION | <p>x-axis</p>  | <p>y-axis</p>  | |
| TRANSLATION | <p>$(x, y) \rightarrow (x + 2, y - 5)$</p>  | <p>$(x, y) \rightarrow (x - 9, y - 1)$</p>  | |
| ROTATION | <p>90° counterclockwise</p>  | <p>180°</p>  | <p>270° counterclockwise</p>  |
| DILATION | <p>$k = 2$</p>  | <p>$k = 1/2$</p>  | |

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Use IXL to practice

Dilation: 8th Grade Q.3

Rotation: 7th Grade X.8

Reach smart score of 80 then work
on graded classwork