
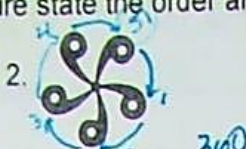


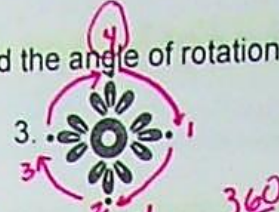
# UNIT 7: TRANSFORMATIONS


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**Practice:** For each figure state the order and the angle of rotation.

1.  Order: 2 Angle:  $\frac{360}{2}$  180°

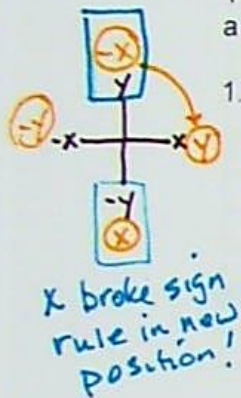
2.  Order: 5 Angle:  $\frac{360}{5}$  72°

3.  Order: 4 Angle:  $\frac{360}{4}$  90°

 Order: 6 Angle:  $\frac{360}{6}$  60°

## Notes for Rotational Symmetry on a Coordinate Grid

The vertices of a polygon are listed. Graph and label each polygon and its image after a given rotation. Name the coordinates of the image.



1. Rotate figure STU about the origin **90° clockwise**.

S (0, 2) → S' (2, 0)

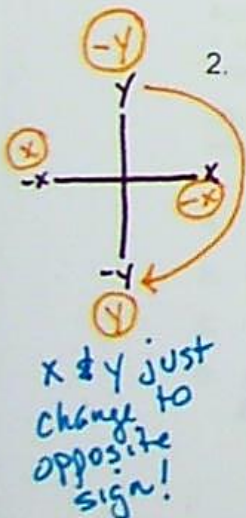
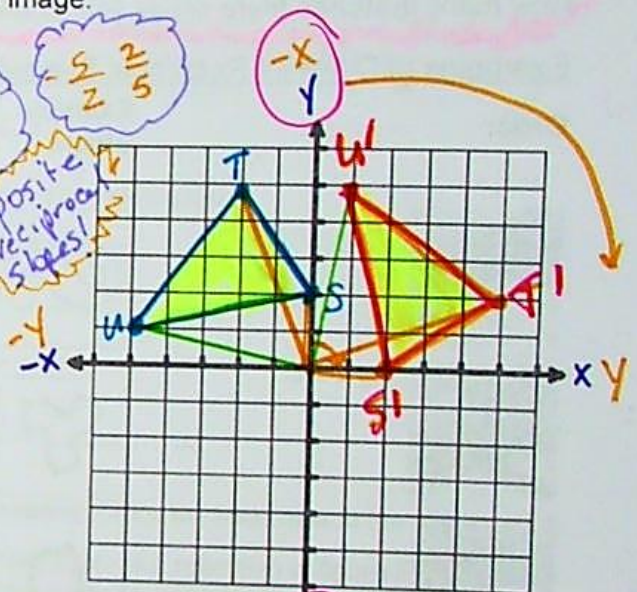
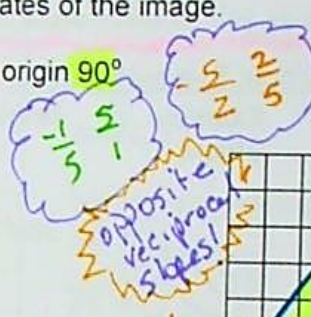
T (-2, 5) → T' (5, 2)

U (-5, 1) → U' (1, 5)

Write the general rule:

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

switch and negate x



2. Rotate figure EFG about the origin **180°**.

E (1, 4) → E' (-1, -4)

F (3, -2) → F' (-3, 2)

G (5, 4) → G' (-5, -4)

Write the general rule:

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

