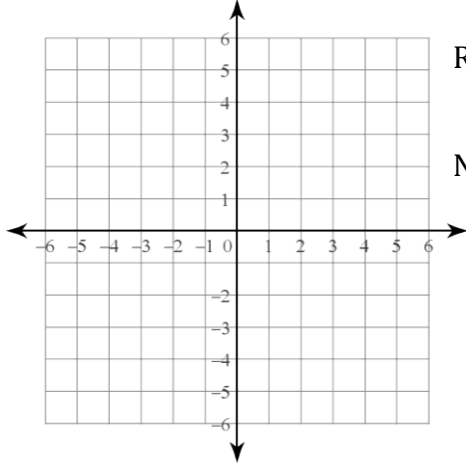


Rotations

Graph the preimage and image. List the coordinates of the image. Then write the rule and proper notation.

- 1) $\triangle RST$: $R(2, -1)$, $S(4, 0)$, and $T(1, 3)$
 90° counter clockwise about the origin.

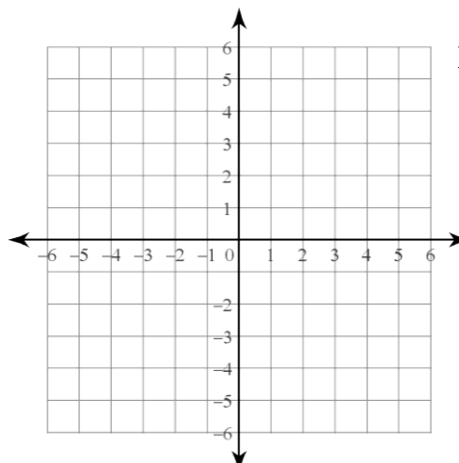


Rule:

Notation:

$R'(_, _)$ $S'(_, _)$ $T'(_, _)$

- 2) $\triangle FUN$: $F(-4, -1)$, $U(-1, 3)$, and $N(-1, 1)$
 180° clockwise about the origin.

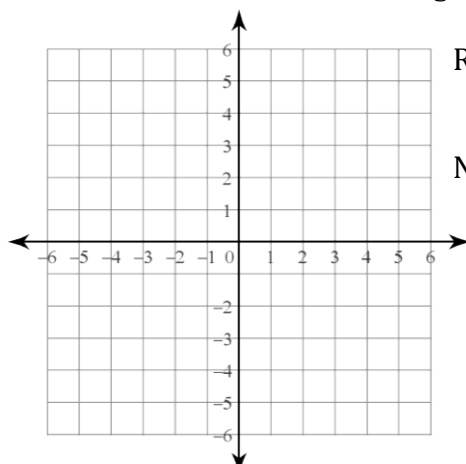


Rule:

Notation:

$F'(_, _)$ $U'(_, _)$ $N'(_, _)$

- 3) $\triangle TRL$: $T(2, -1)$, $R(4, 0)$, and $L(1, 3)$
 90° clockwise about the origin.

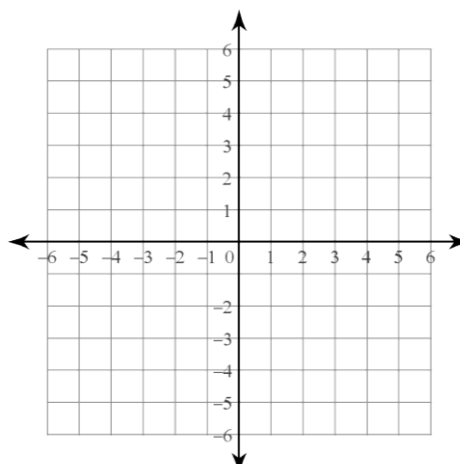


Rule:

Notation:

$T'(_, _)$ $R'(_, _)$ $L'(_, _)$

- 4) $\triangle CDY$: $C(-4, 2)$, $D(-1, 2)$, and $Y(-1, -1)$
 180° counter clockwise about the origin.



Rule:

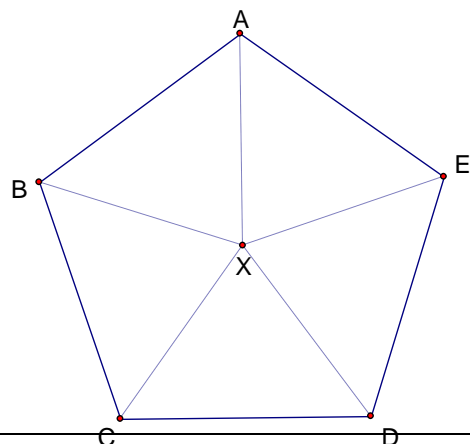
Notation:

$C'(_, _)$ $D'(_, _)$ $Y'(_, _)$

5) Application

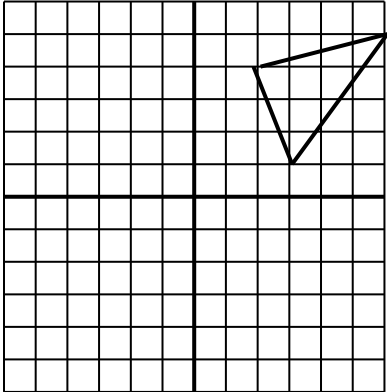
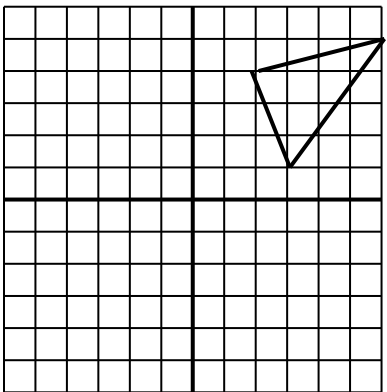
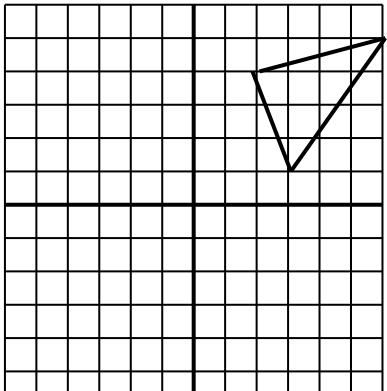
ABCDE is a regular pentagon with center X.

- Name the image of point E for a counterclockwise 72° rotation about X.
- Given the image for a clockwise 216° rotation about X is \overline{CB} . What was its preimage?
- Describe 2 rotations with a preimage of point D and image of B.



Rotations with Coordinates

For each problem graph the image points. Specifically describe in words the rotation that occurred. Then, write the Algebraic Rule and the proper notation for the rotation.

<p>1) The coordinates of ABC are A(3, 1), B(6, 5) and C(2, 4). The coordinates of A'B'C' are A'(-1, 3), B'(-5, 6), and C'(-4, 2).</p> <p>Description:</p> <p>Algebraic Rule:</p> <p>Notation:</p>	
<p>2) The coordinates of ABC are A(3, 1), B(6, 5) and C(2, 4). The coordinates of A'B'C' are A'(1, -3), B'(5, -6), and C'(4, -2).</p> <p>Description:</p> <p>Algebraic Rule:</p> <p>Notation:</p>	
<p>3) The coordinates of ABC are A(3, 1), B(6, 5) and C(2, 4). The coordinates of A'B'C' are A'(-3, -1), B'(-6, -5), and C'(-2, -4).</p> <p>Description:</p> <p>Algebraic Rule:</p> <p>Notation:</p>	
<p>4) The coordinates of ABC are A(2, -1), B(6, 4) and C(-3, 2). The coordinates of A'B'C' are A'(-1, -2), B'(4, -6), and C'(2, 3).</p> <p>Description:</p> <p>Algebraic Rule:</p> <p>Notation:</p>	