Period
Date

READY
Topic: Defining polygons and their attributes
For each of the geometric words below write a definition of the object that addresses the essential elements.

1. Quadrilateral:
2. Parallelogram:
3. Rectangle:
4. Square:
5. Rhombus:
6. Trapezoid:

## SET

Topic: Reflections and rotations, composing reflections to create a rotation.
7.


Use the center of rotation point $\boldsymbol{C}$ and rotate point $\boldsymbol{P}$ clockwise around it $90^{\circ}$. Label the image $\boldsymbol{P}^{\prime}$. With point $\boldsymbol{C}$ as a center of rotation also rotate point $\boldsymbol{P} 180^{\circ}$. Label this image $\boldsymbol{P}^{\prime \prime}$.

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8.

9.

10.

11.


Use the center of rotation point $\boldsymbol{C}$ and rotate point $\boldsymbol{P}$ clockwise around it $90^{\circ}$. Label the image $\boldsymbol{P}^{\prime}$. With point $\boldsymbol{C}$ as a center of rotation also rotate point $\boldsymbol{P}$ $180^{\circ}$. Label this image $P^{\prime \prime}$.
a. What is the equation for the line for reflection that reflects point $\boldsymbol{P}$ onto $\boldsymbol{P}^{\prime}$ ?
b. What is the equation for the line of reflections that reflects point $\boldsymbol{P}^{\prime}$ onto $\boldsymbol{P}^{\prime \prime}$ ?
c. Could $\boldsymbol{P}^{\prime \prime}$ also be considered a rotation of point $\boldsymbol{P}$ ? If so what is the center of rotation and how many degrees was point $\boldsymbol{P}$ rotated?
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GO
Topic: Rotations about the origin.
Plot the given coordinate and then perform the indicated rotation in a clockwise direction around the origin, the point $(0,0)$, and plot the image created. State the coordinates of the image.
12. Point $\boldsymbol{A}(4,2)$ rotate $180^{\circ}$ Coordinates for Point $\boldsymbol{A}^{\prime}$ ( $\qquad$
13. Point $\boldsymbol{B}(-5,-3)$ rotate $90^{\circ}$ clockwise Coordinates for Point $\boldsymbol{B}^{\prime}(\ldots, \ldots)$
15. Point $\boldsymbol{D}(1,-6)$ rotate $90^{\circ}$ clockwise Coordinates for Point $\boldsymbol{D}^{\prime}(\ldots, \ldots)$


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