


## REFLECTIONS

NAME $\qquad$ Date $\qquad$ Due Date $\qquad$ Period $\qquad$
Directions: Graph and label the following points. Connect the points in alphabetical order to make a decagon.
A(1,1)
$B(5,8) \quad C(5,11)$
$D(2,12) \quad E(4,13)$
$F(5,16) \quad G(6,11)$
$H(10,17)$
I $(8,10)$
$\mathrm{J}(15,12)$

1. This figure is in Quadrant $\qquad$ .
2. To reflect this preimage by the $y$ axis, multiply the $X \quad Y$ (circle one) by $\qquad$ .
3. Complete a reflection by the $y$ axis of the above figure (preimage). List the new ordered pairs. Be sure to label the points on the reflected image.

| $A^{\prime}(\quad)$ | $B^{\prime}(\quad)$ | $C^{\prime}(\quad)$ | $D^{\prime}(\quad)$ | $E^{\prime}(\quad)$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $F^{\prime}(\quad)$ | $G^{\prime}(\quad)$ | $H^{\prime}(\quad)$ | $I^{\prime}(\quad)$ | $J^{\prime}(\quad)$ |

4. The image is now in Quadrant $\qquad$ .
5. Go back to the preimage. Reflect the preimage by the $x$ axis. List the new ordered pairs. Be sure to label the points on the reflected image.
6. To reflect the image across the $X$ axis you multiply the $X Y$ (circle your choice) by $\qquad$ .

| $A^{\prime \prime}($ | ) | $B^{\prime \prime}$ | ) | $\mathrm{C}^{\prime \prime}$ | ) | D" | ) | E"( | ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{F}^{\prime \prime}($ | ) | $\mathrm{G}^{\prime \prime}$ |  | $\mathrm{H}^{\prime \prime}$ | ) | $\mathrm{I}^{\prime \prime}($ | ) | J"( |  |

7. The image in number 7 is in Quadrant $\qquad$ .
8. Go back to the preimage. Reflect the preimage into Quadrant III. List the new ordered pairs. Be sure to label the points on the reflected image.
9. To reflect the image into Quadrant III you multiply the $X$. (eircle your choice) by $\qquad$ .

