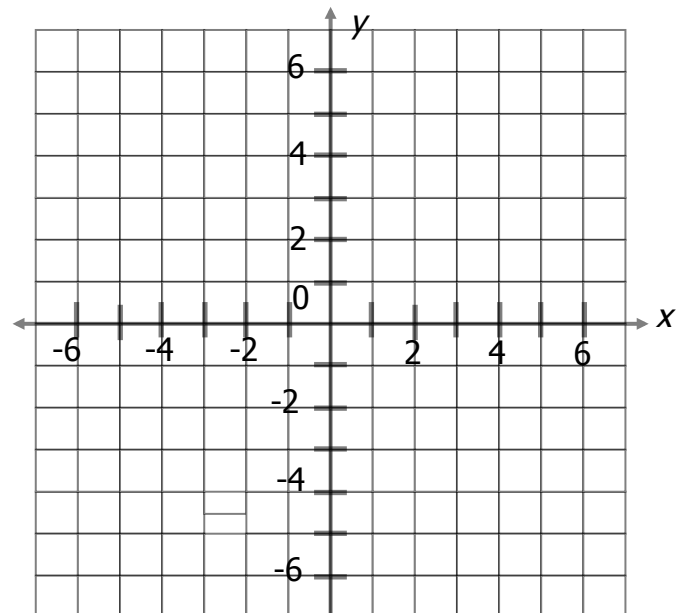# P.S. #6.5b - Review for Quiz #6 (Transformations)
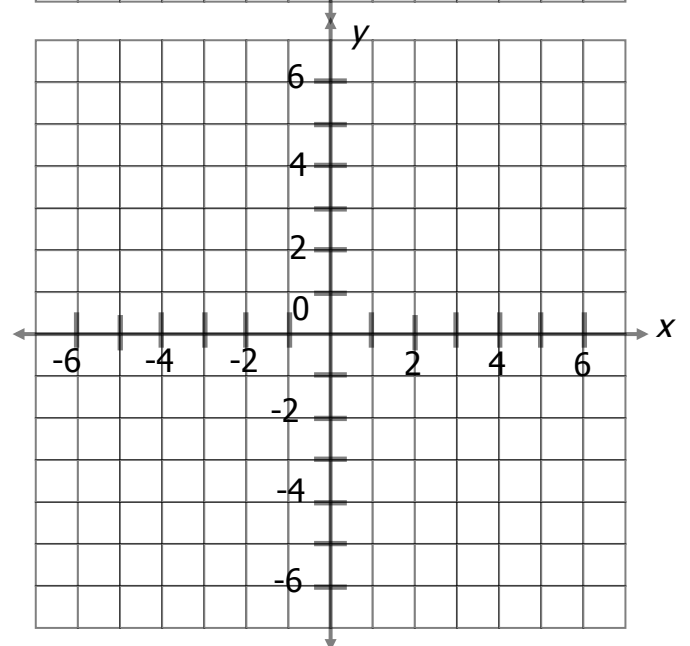
Name: _____ Class: _____

1.) If the area of a triangle is 72, what is the area of the triangle after it is reflected in the x-axis?
_____

2.) If the perimeter of a hexagon is 9, what is the perimeter of the hexagon after a dilation with scale factor 10? _____

3.) Which of the following words has point symmetry?
   (A) wow   (B) mom   (C) dog   (D) pod

4.) Graph $\triangle ABC$ with coordinates $A(2,4)$, $B(4,6)$ and $C(4,2)$.
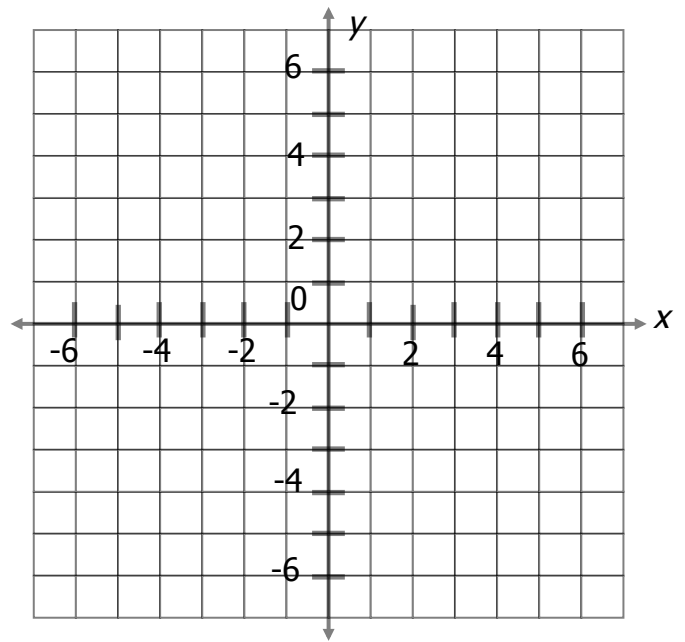   a.) Dilate $\triangle ABC$ with a scale factor of ½. What are the coordinates of $\triangle A'B'C$?

   b.) Consider the translation $(x,y) \rightarrow (x-5, y-2)$. What direction does this translation move the figure?

   c.) Translate $\triangle A'B'C'$ using the rule $(x,y) \rightarrow (x-5, y-2)$. What are the coordinates of $\triangle A''B''C'$?

5.) Draw hexagon $JAYDEN$ with coordinates $J(1,2)$, $A(2,5)$, $Y(5,5)$, $D(6,2)$, $E(5,-1)$ and $N(2,-1)$. Then, draw pentagon $J'A'Y'D'E'N'$ after a reflection in the line $x = 1$. What are coordinates of the image $J'A'Y'D'E'N'$?
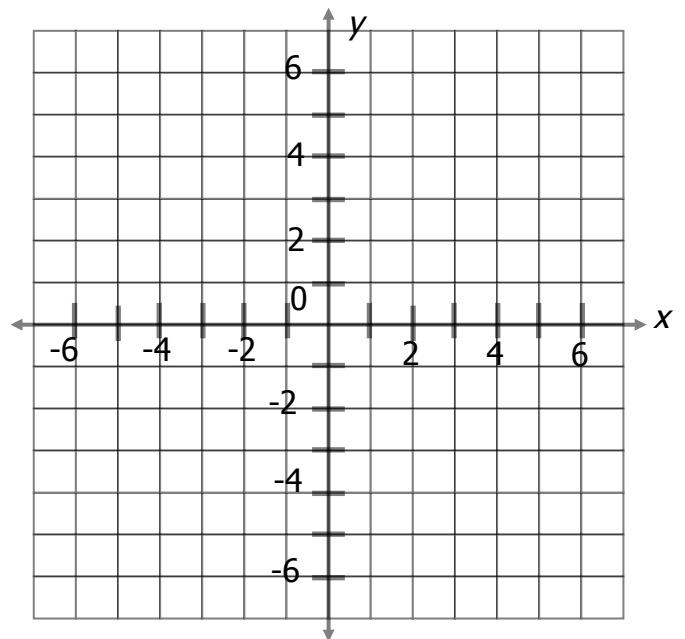
6.) Draw △*TRI* with coordinates *T*(1,3), *R*(4,7), and *I*(7,0). Then draw △*TRI* after a reflection in the line $y = -x$. What are the new coordinates?

7.) In which transformation is size not preserved?
(A) dilation   (B) reflection   (C) rotation   (D) translation

8.) In which transformation is orientation not preserved?
(A) dilation   (B) reflection   (C) rotation   (D) translation

9.) Plot and label △*PQR* on the graph below given *P*(2,6), *Q*(-1,3), and *R*(-4,6).
a.) Rotate △*PQR* 270° counterclockwise. State the coordinates.

b.) Reflect △*P'Q'R'* over the line $y = -1$. State the coordinates. (Yes, this one is tricky!)