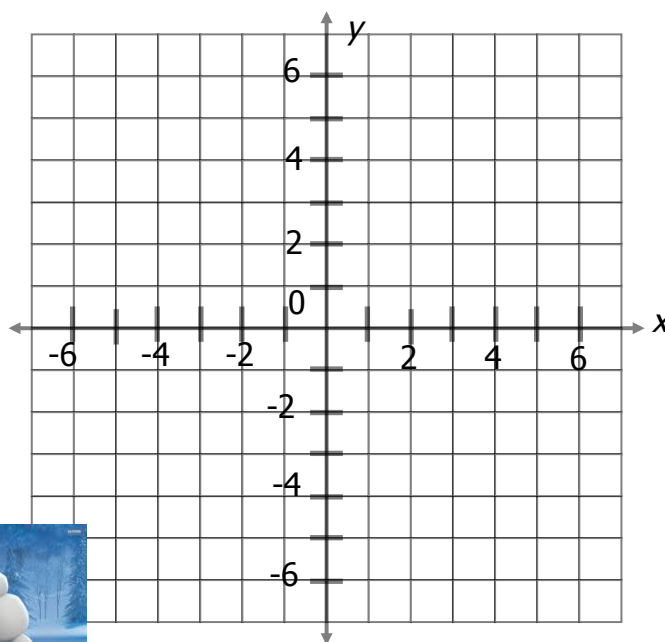
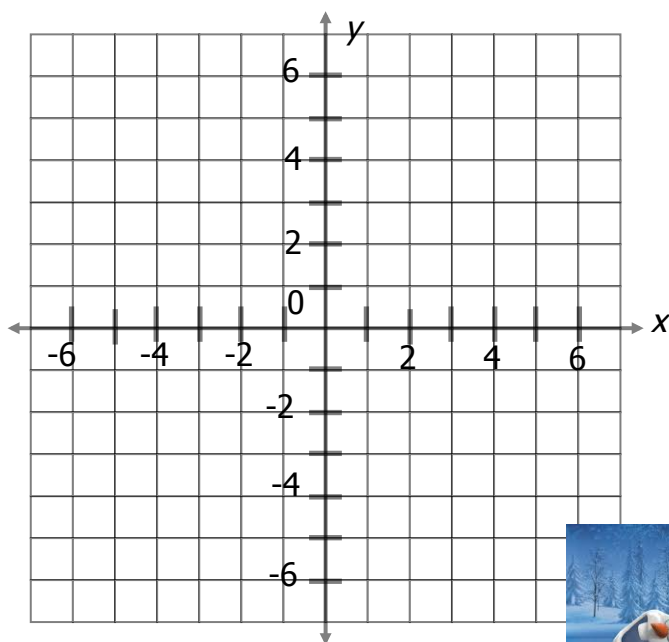


P.S. #6.5a - Rotations

Name: _____ Class: _____

- 1.) Draw and label a 90° **clockwise** rotation of rectangle LEAH with coordinates $L(1,3)$, $E(4,6)$, $A(4,6)$ and $H(1,6)$ in the graph below. State the coordinates of the image.
- 2.) Draw and label a 180° **counterclockwise** rotation of $\triangle DOM$ with coordinates $D(0,0)$, $O(3,6)$, and $M(7,1)$ in the graph. Write the coordinates of each of the vertices of the new triangle.



- 3.) If the area of a rectangle is 35, what is the area of a rectangle after it has been rotated 270° clockwise? _____
- 4.) If $A(1,5)$ is reflected over the y -axis, what are the coordinates of the image A' ? _____
- 5.) Evaluate each expression to complete the following table. Write each number without an exponent.

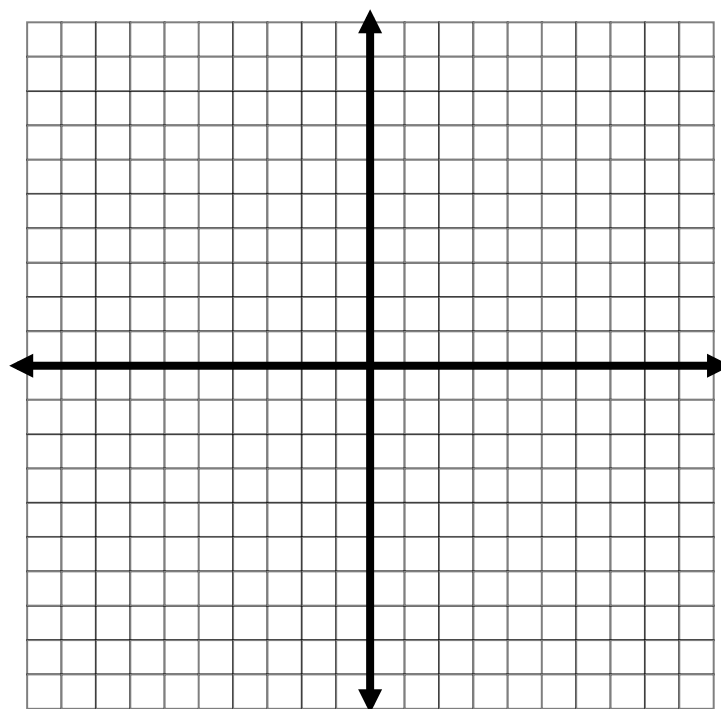
3^3	3^2	3^1	3^0	3^{-1}	3^{-2}	3^{-3}

- 6.) Find the equation of a line that passes through the point $(4,1)$ and $(2,7)$.

7.) Plot $\triangle ABC$ with vertices $A(4,2)$, $B(5,4)$, and $C(1,8)$.

a.) Reflect $\triangle ABC$ over the x -axis. State the coordinates.

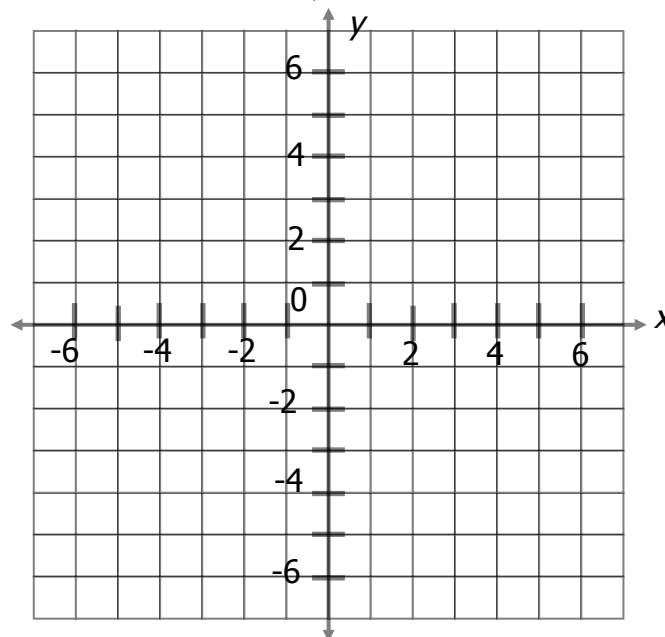
b.) Translate $\triangle A'B'C'$ with the following translation $T_{-8,-2}$. State the coordinates.



8.) Plot and label $\triangle XYZ$ with vertices $X(-4,-2)$, $Y(-6,-2)$, and $Z(-6,-4)$.

a.) Reflect $\triangle XYZ$ over the line $y = x$. State the coordinates.

b.) Dilate $\triangle X'Y'Z'$ with a scale factor of $\frac{1}{2}$. State the coordinates.



9.) Rotate the following figure 270° counterclockwise about the origin.

