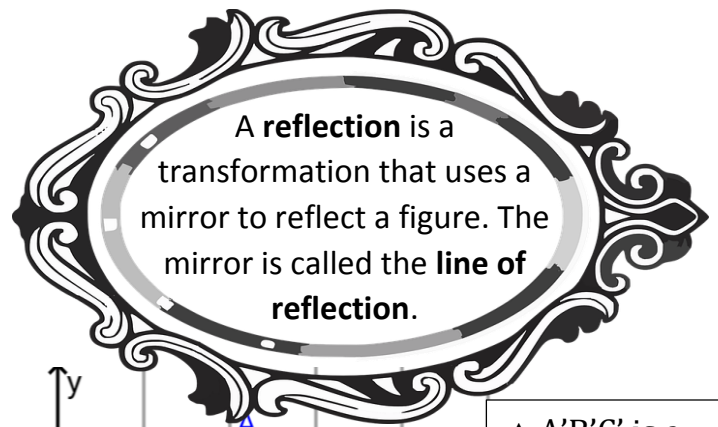
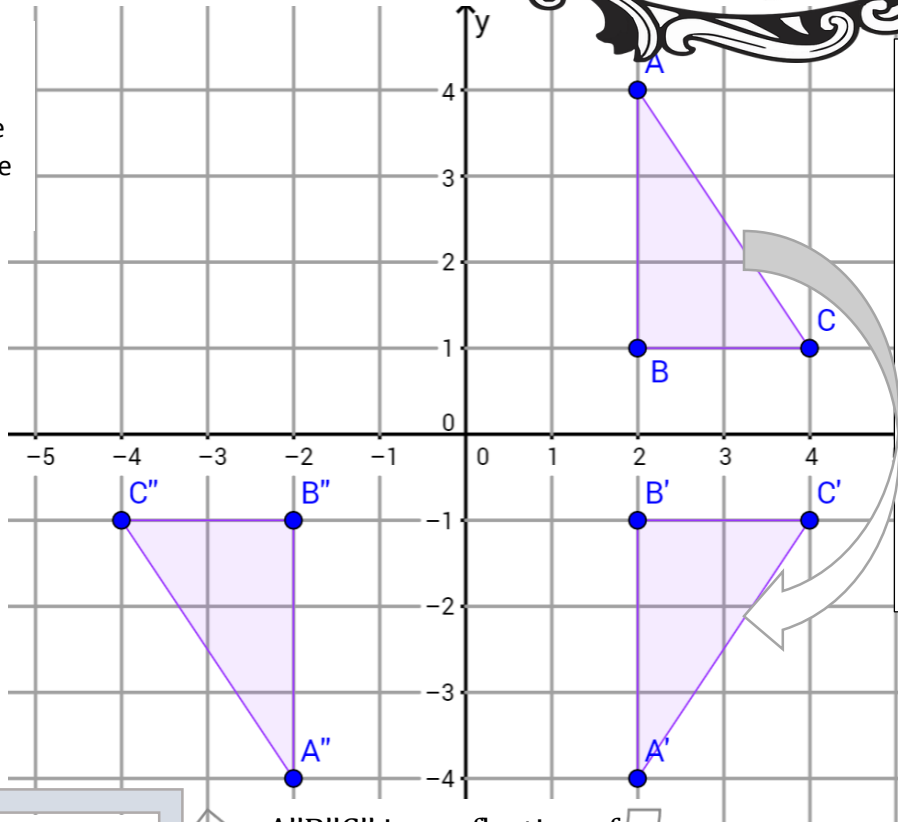
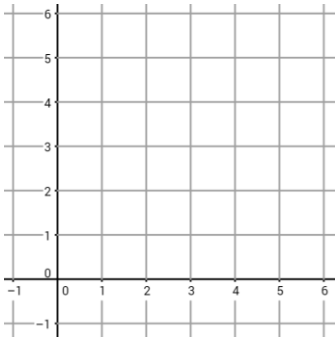


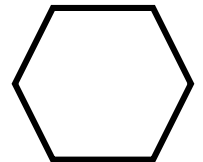
# Reflections



Graph  $\triangle ABC$  with vertices  $A(1, 3)$ ,  $B(5, 2)$ , and  $C(2, 1)$  and its image after the reflection in the line  $m: y = 3$ .

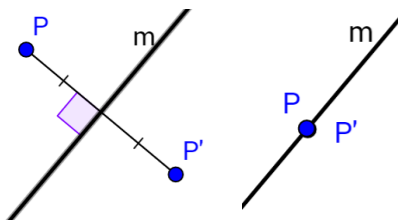


$\triangle A'B'C'$  is a reflection of  $\triangle ABC$  across the           .  
The distance from each preimage point to the x-axis is the same as the distance from the x-axis to the image point.

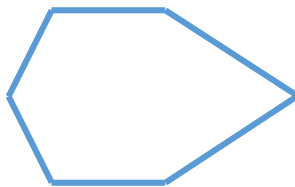


A reflection in a line  $m$  maps every point  $P$  in the plane to a point  $P'$ , so that for each point one of the following properties is true.

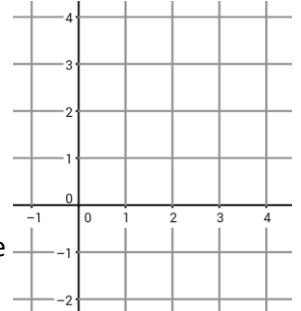
1. If  $P$  is not on  $m$ , then  $m$  is the perpendicular bisector of  $\overline{PP'}$  or
2. If  $P$  is on  $m$ , then  $P = P'$



$\triangle A''B''C''$  is a reflection of  $\triangle A'B'C'$  across the           .



Graph  $\overline{AB}$  with endpoints  $A(3, -1)$  and  $B(3, 2)$  and its image after a reflection in the line  $y = x$ .



Graph  $\triangle ABC$  with vertices  $A(3, 2)$ ,  $B(6, 3)$ , and  $C(7, 1)$  and its image after the glide reflection.

**Translation:**  $(x, y) \rightarrow (x, y - 6)$   
**Reflection:** in the y-axis

