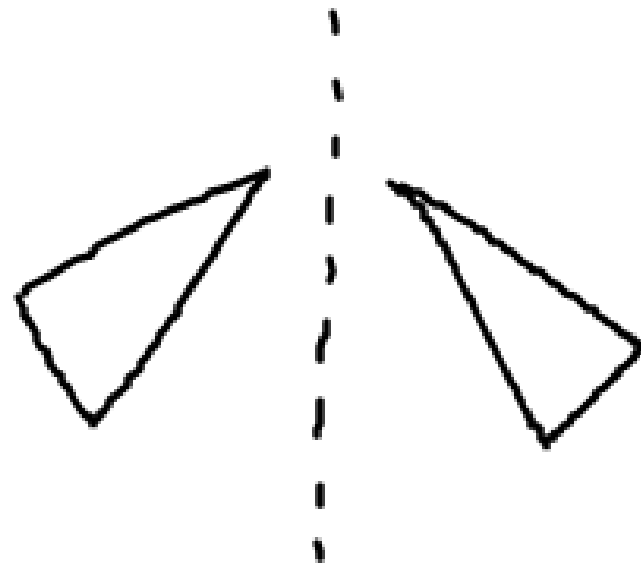
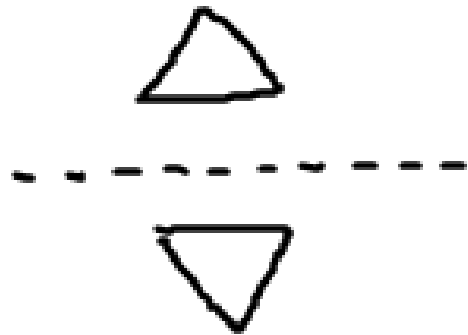
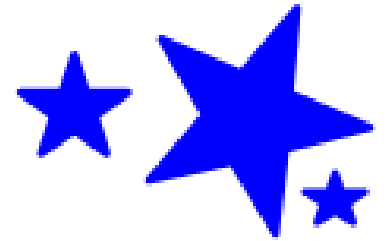


**8 - 6**

**Reflections and  
Line Symmetry**

reflection: flip

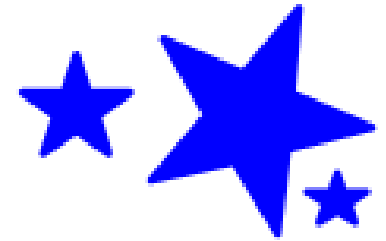


**Real-life examples:** phone  
mirror  
puddles  
eyes

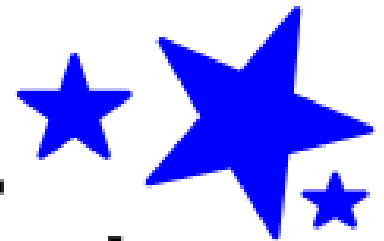
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**1.) Reflection in the y-axis:**

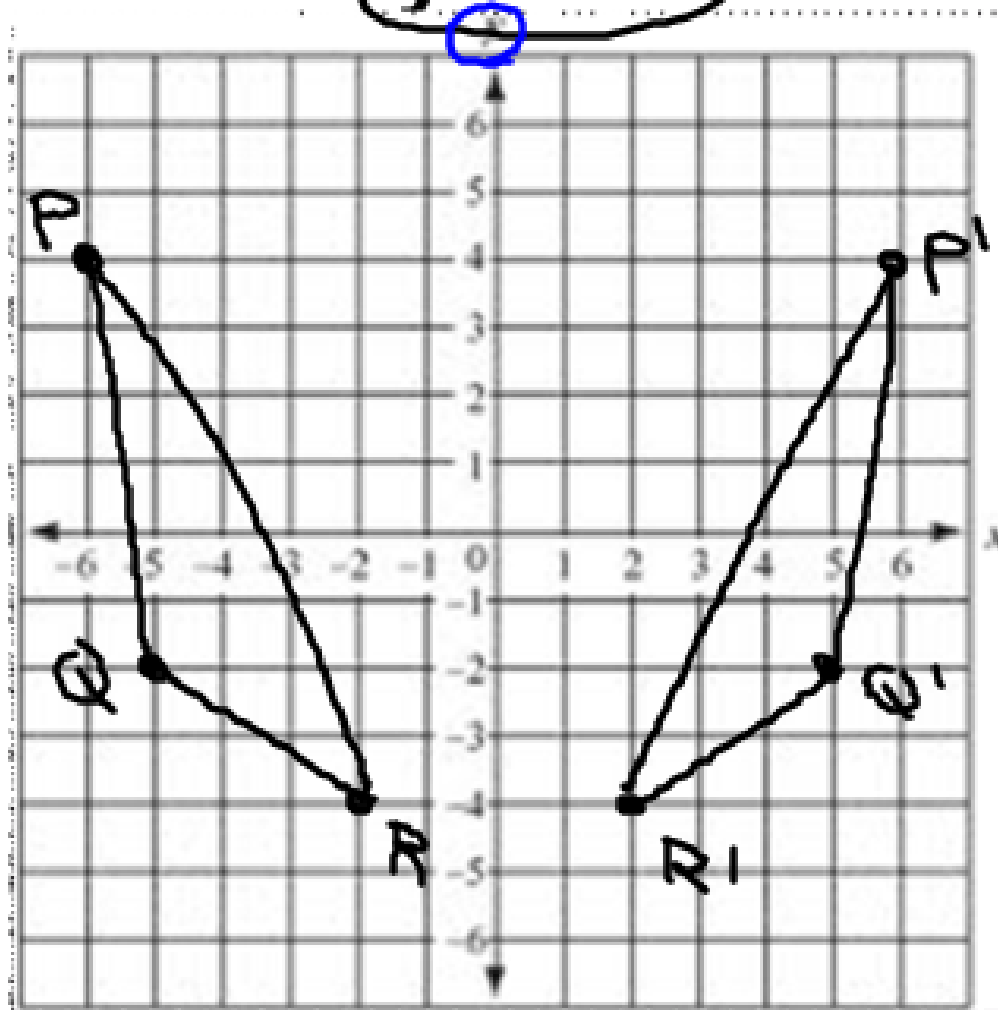
change the sign of  $x$



Ex: Triangle PQR has vertices  $P(-6, 4)$ ,  $Q(-5, -2)$ , and  $R(-2, -4)$ .



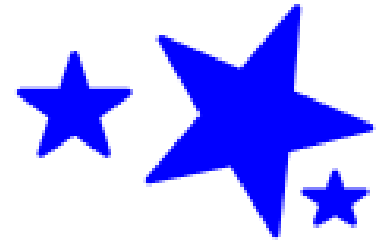
Graph  $\triangle PQR$  and its image under reflection in the y-axis.



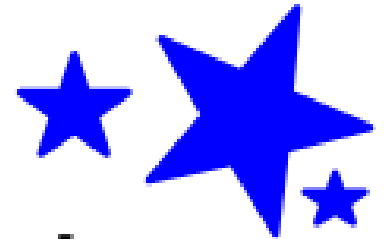
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**2.) Reflection in the x-axis:**

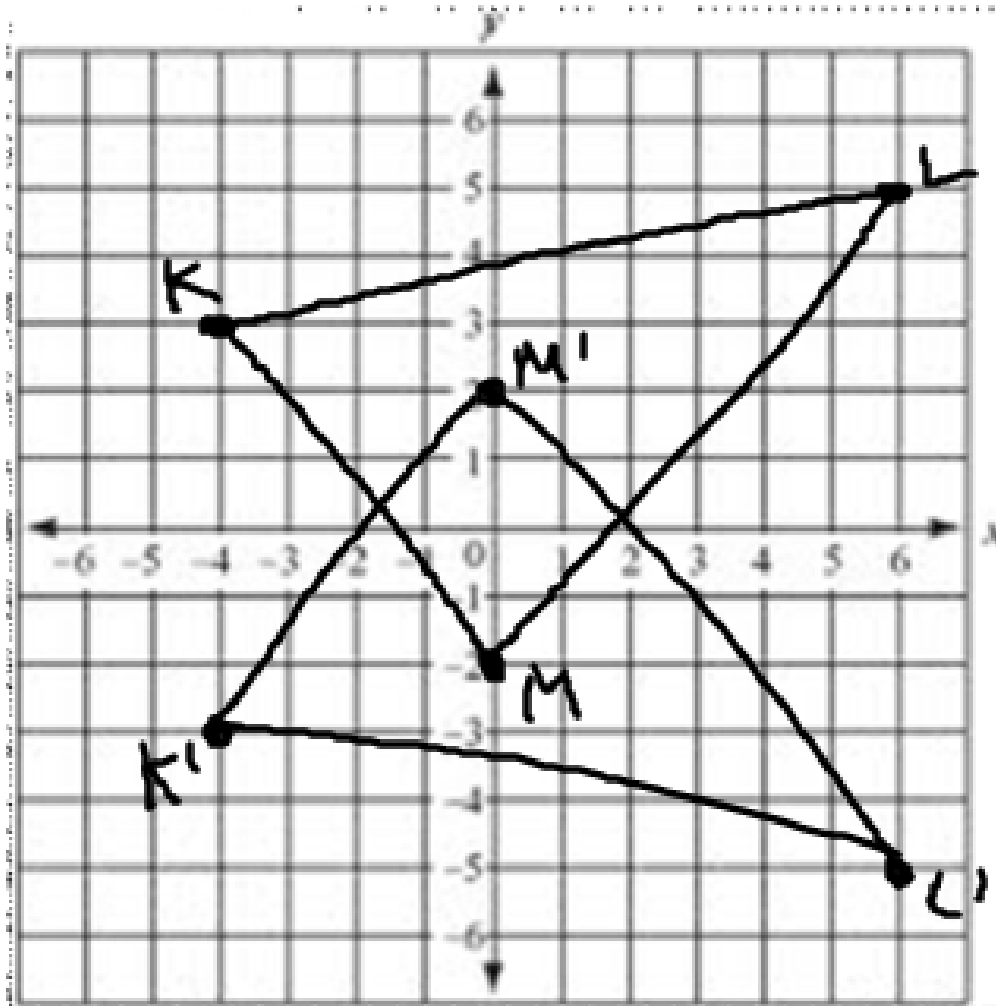
change the sign of  $y$



Ex: The vertices of  $\triangle KLM$  are  $K(-4, -3)$ ,  $L(6, -5)$ , and  $M(0, 2)$ .



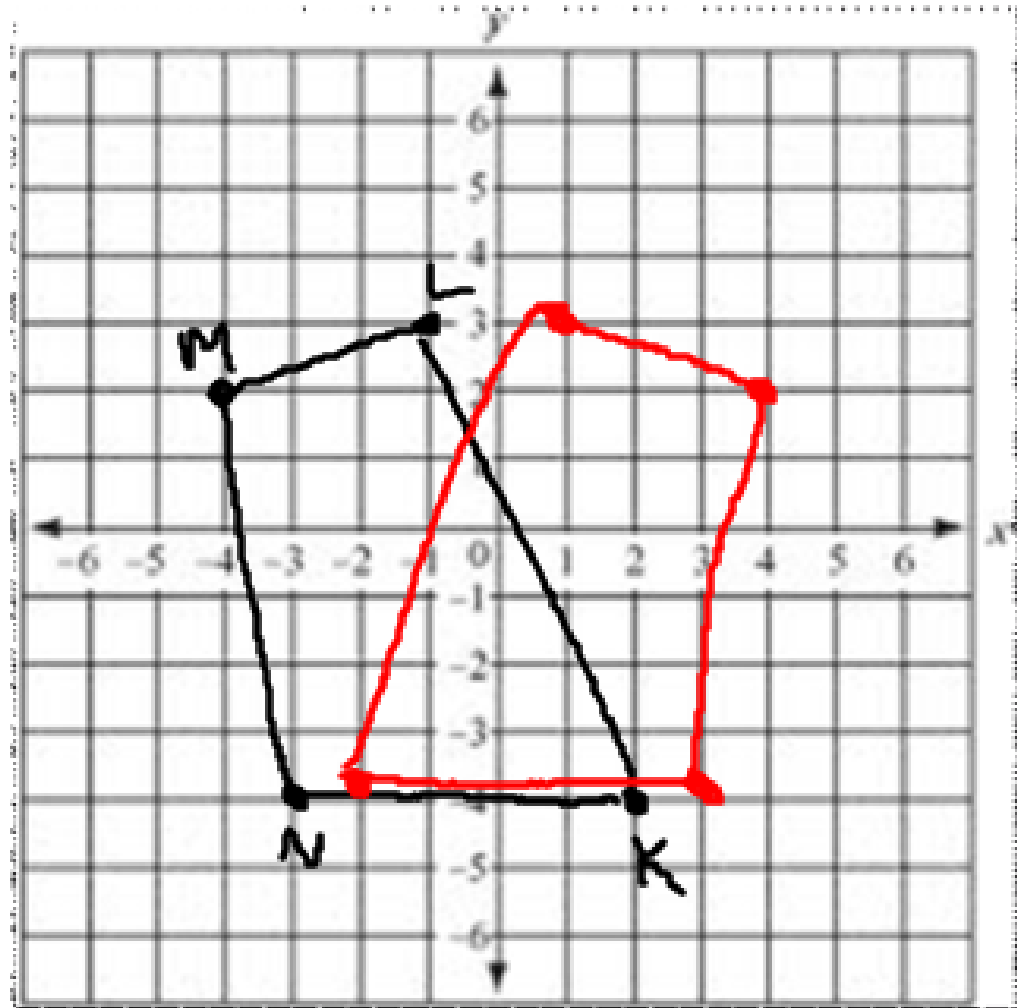
Graph  $\triangle KLM$  and its image under a reflection in the  $x$ -axis.



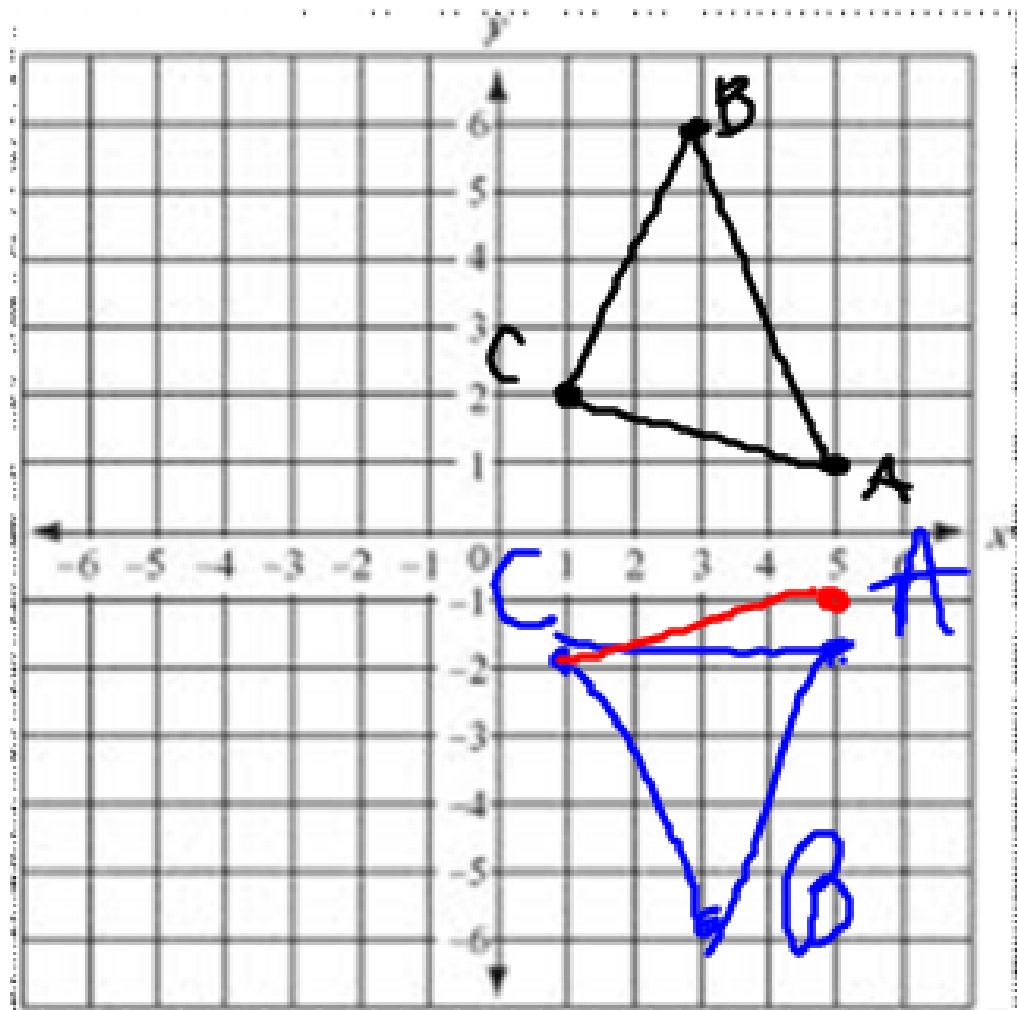
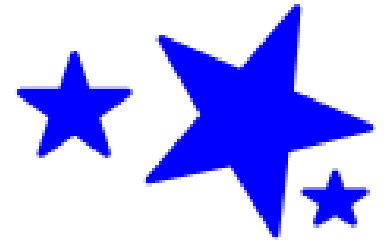
Ex: Quadrilateral KLMN has vertices  $K(2, -4)$ ,  $L(1, 3)$ ,  $M(-4, 2)$ , and  $N(-3, -4)$ . Graph KLMN and its image under a reflection in the  $y$ -axis.



Heil

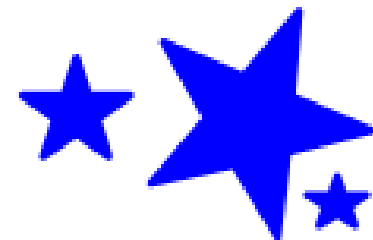
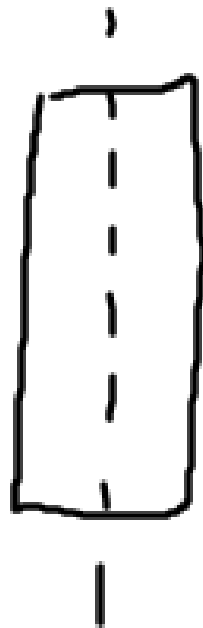


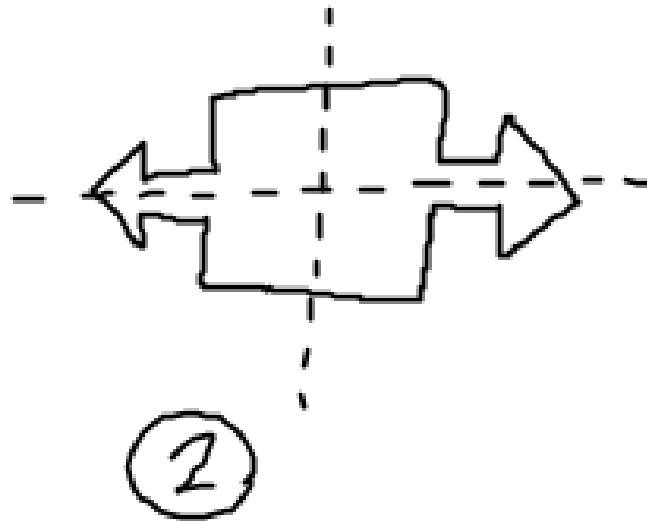
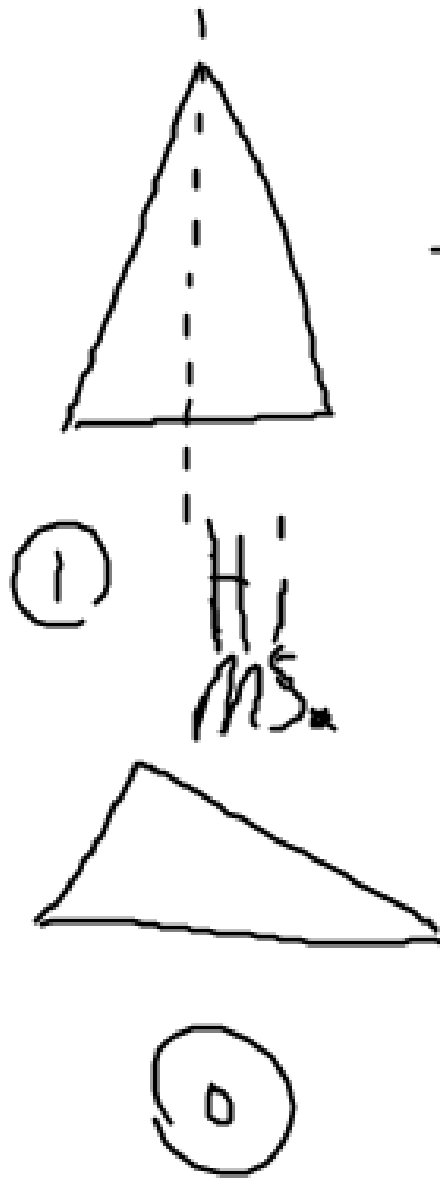
Ex: Triangle ABC has vertices  $A(5, -1)$ ,  $B(3, -6)$ ,  $C(1, -2)$ . Graph  $\triangle ABC$  and its image under a reflection in the  $x$ -axis.



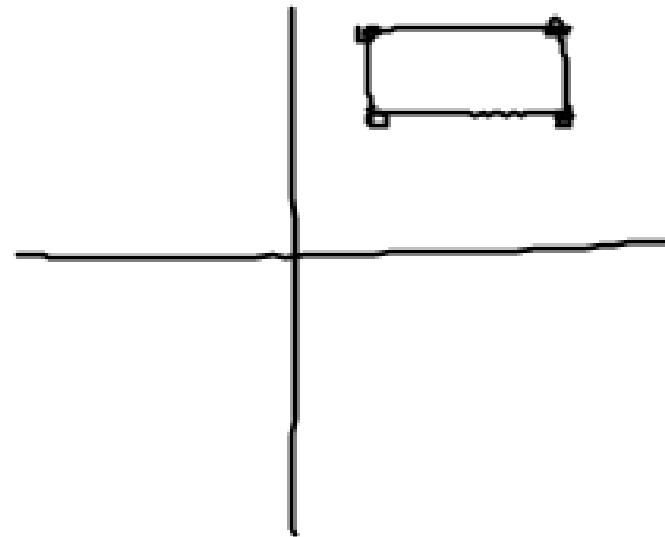


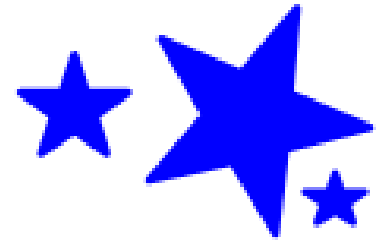
line of symmetry:





$(1, 4)$   $(1, 3)$   
 $(4, 4)$   $(4, 3)$





Homework:

8 - 6 WS