

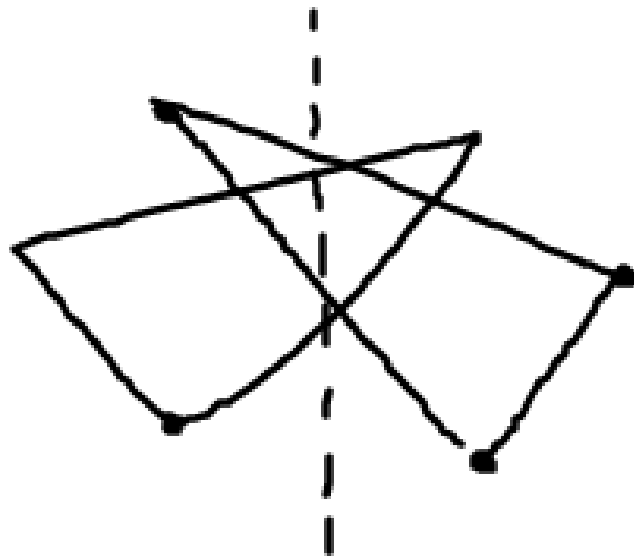
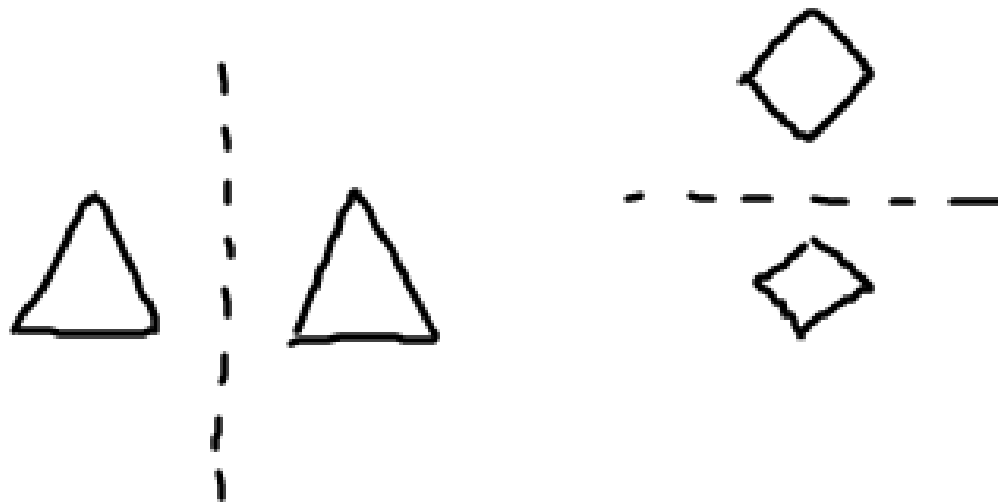
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Reflections

transformation: maps an
original picture (preimage)
onto a new picture (image)



reflection:



isometry: a congruence
transformation



reflection in the x-axis:

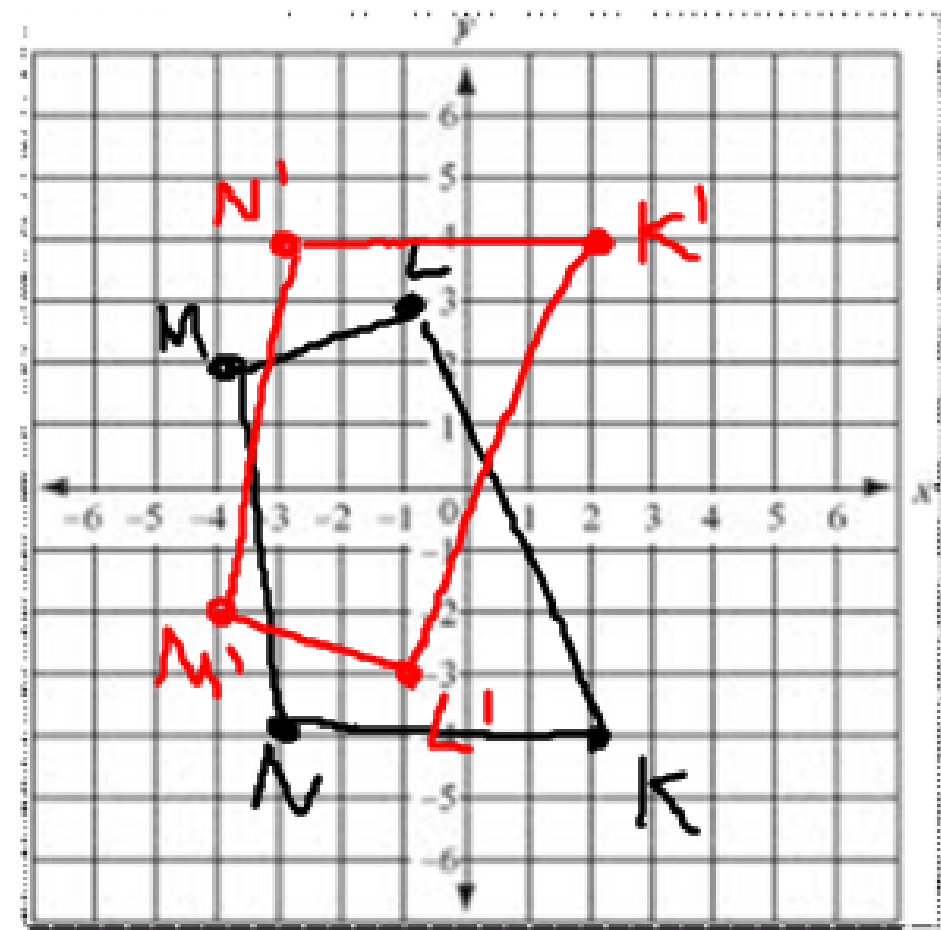
change the sign of the y



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 x-axis.



K'

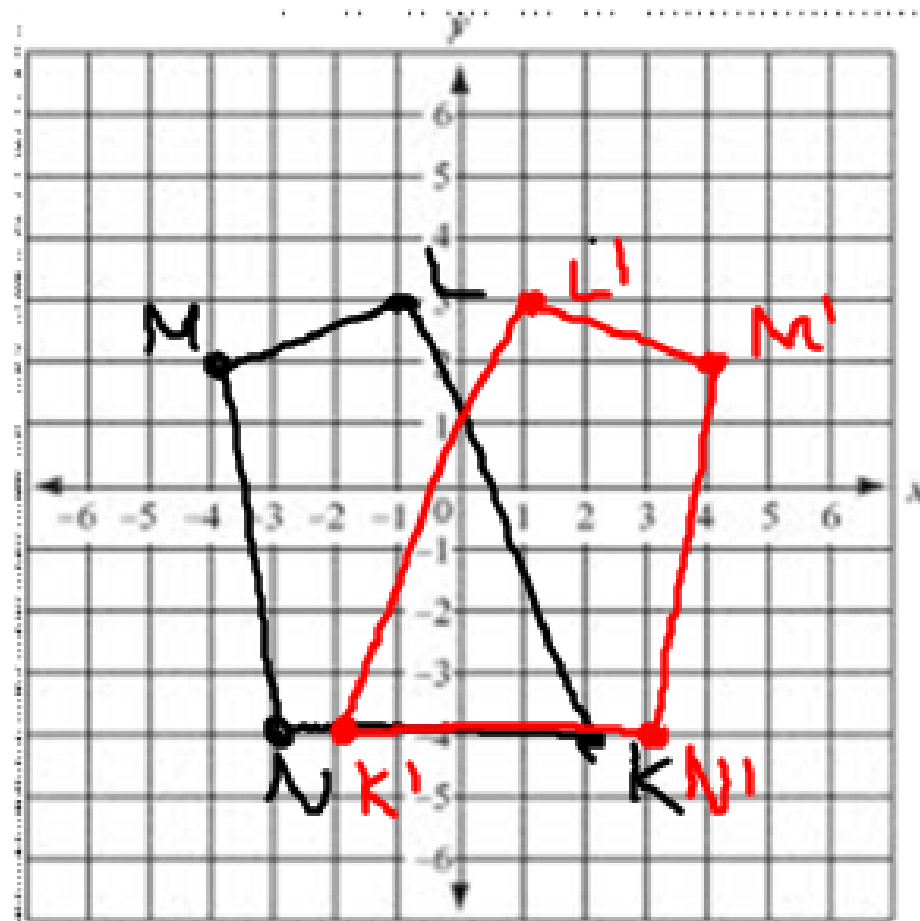


reflection in the y-axis:

change the sign of x



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.

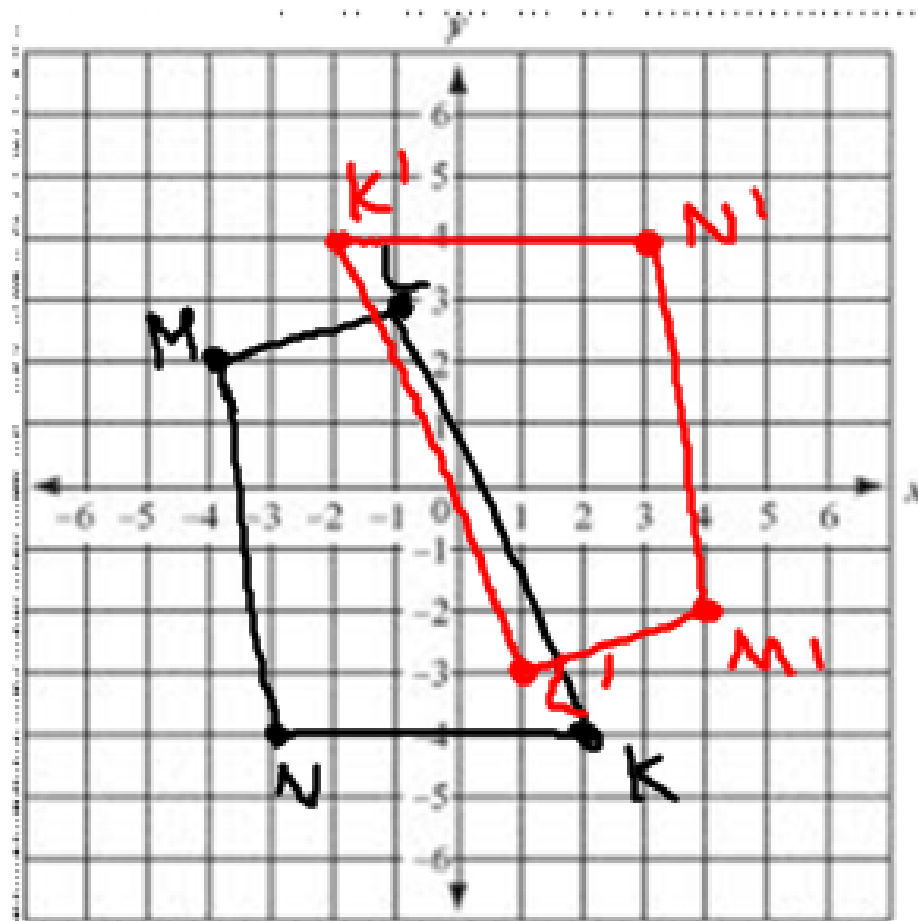


reflection in the origin:

change the sign
of both x and y



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 origin.



reflection in the line $y = x$:

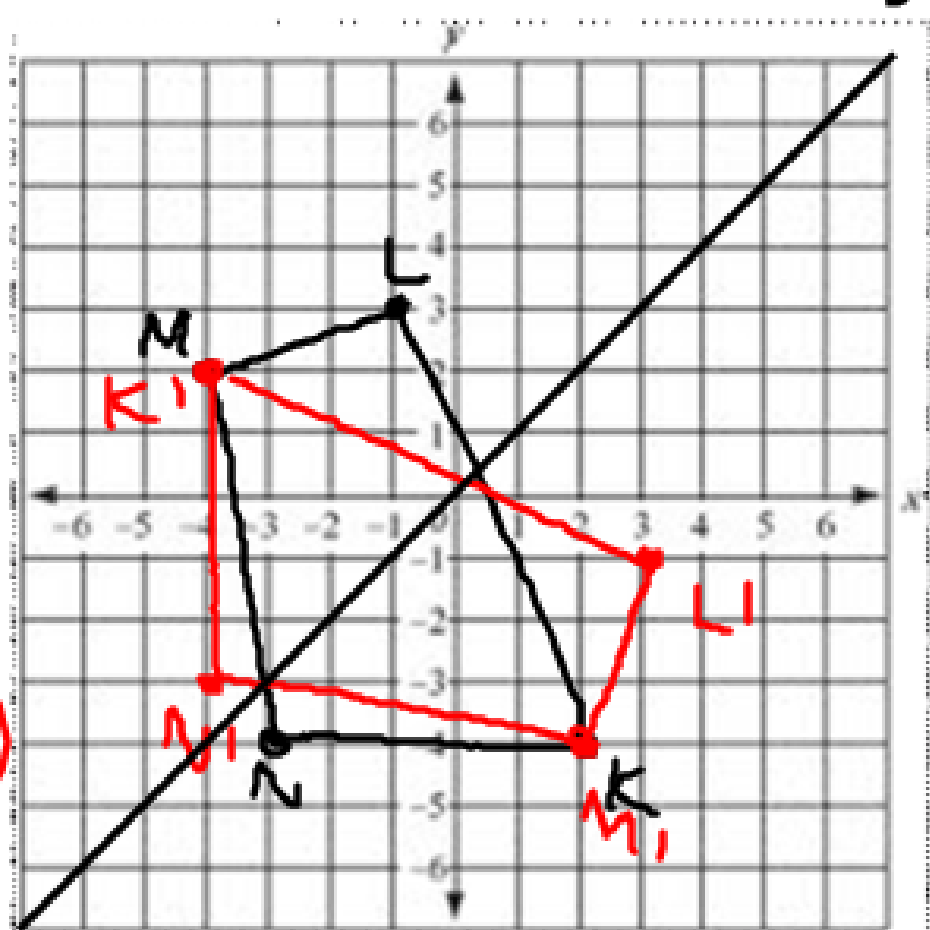
switch the x and y
(signs stay)



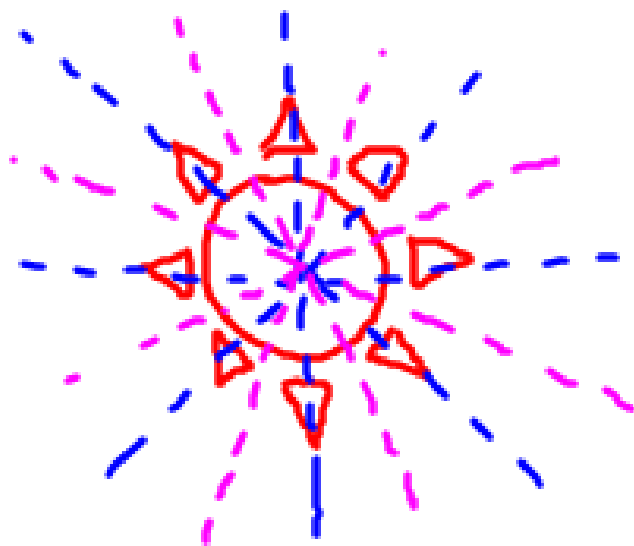
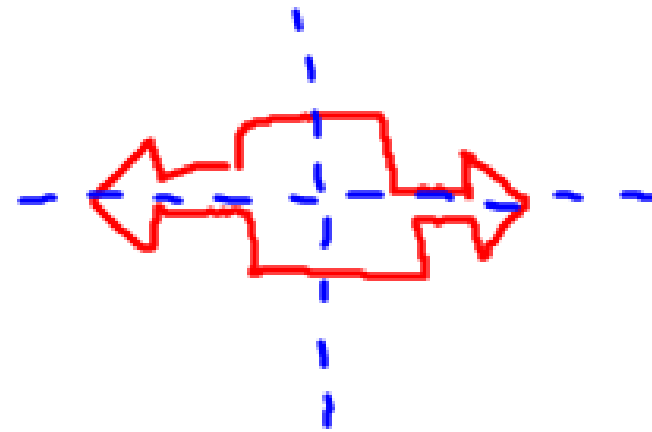
Quadrilateral KLMN has vertices $K(2, -4)$, $L(-1, 3)$, $M(-4, 2)$, and $N(-3, -4)$. Graph KLMN and its image under a reflection in the line $y = x$.



$K'(-4, 2)$
 $L'(3, -1)$
 $M'(2, -4)$
 $N'(-4, -3)$



line of symmetry:



point of symmetry:





Homework:

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