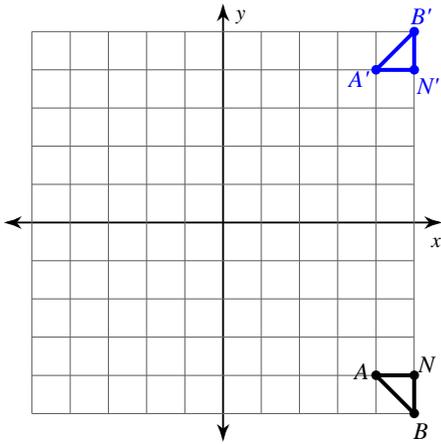


# TRANSFORMATIONS

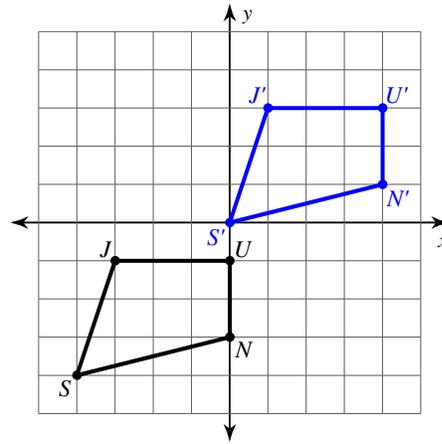
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**Write a rule to describe each transformation.**

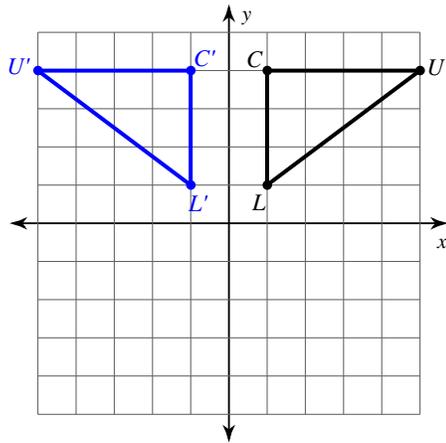
1)



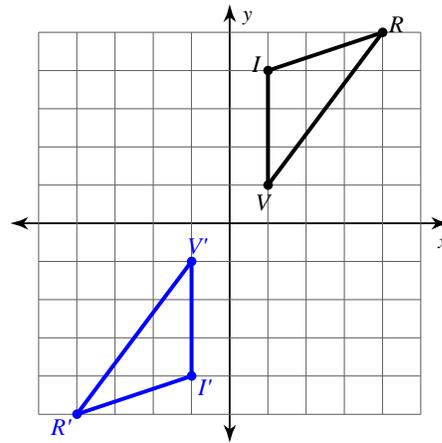
2)



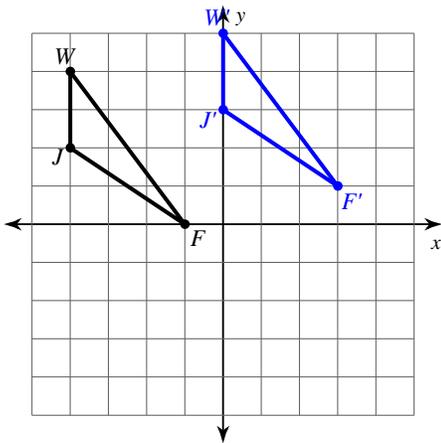
3)



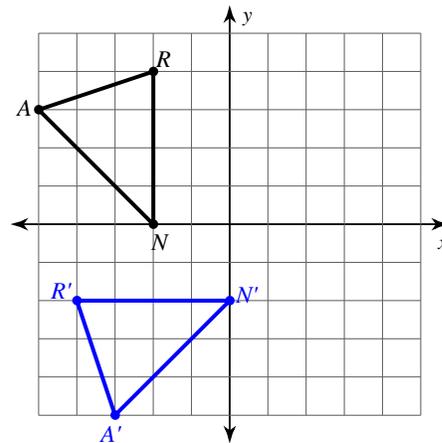
4)



5)

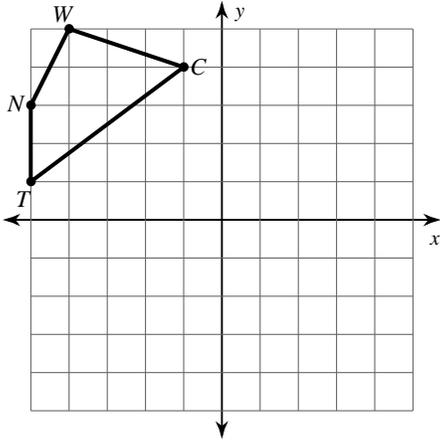


6)

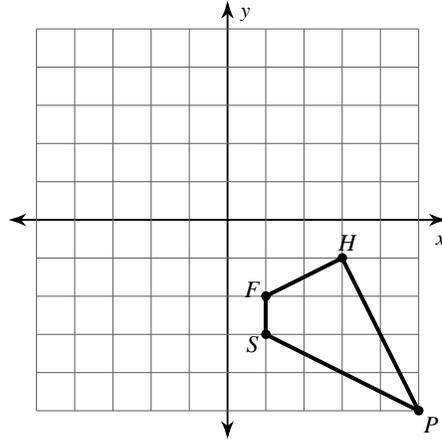


Translate the figure as indicated. Label the image using prime notation.

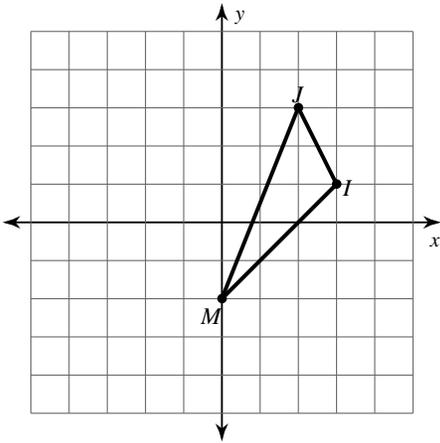
7) translation: 3 units right and 3 units down



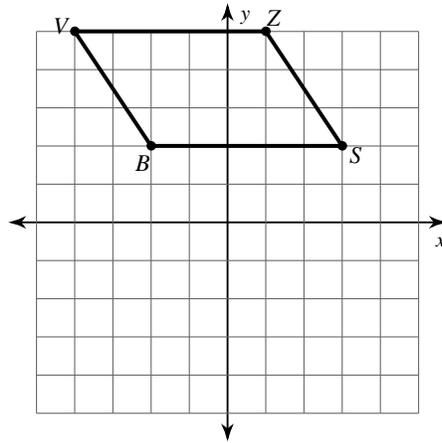
8) translation: 4 units left and 1 unit up



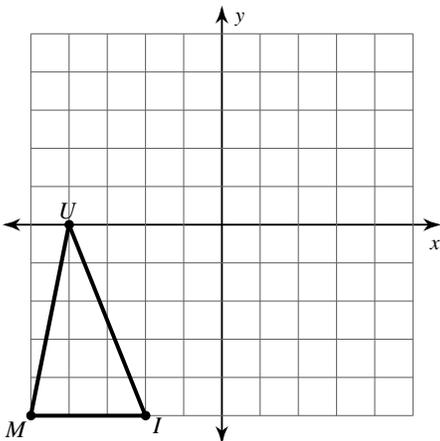
9) translation: 5 units left and 2 units up



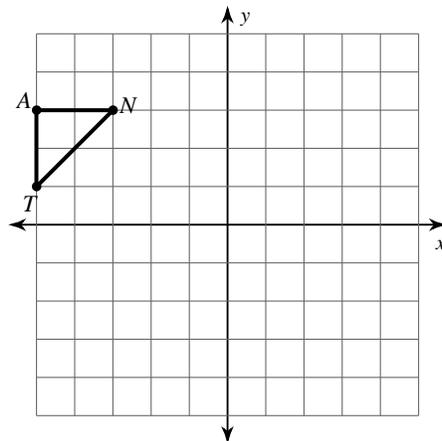
10) translation: 2 units right and 5 units down



11) translation: 2 units right and 2 units up

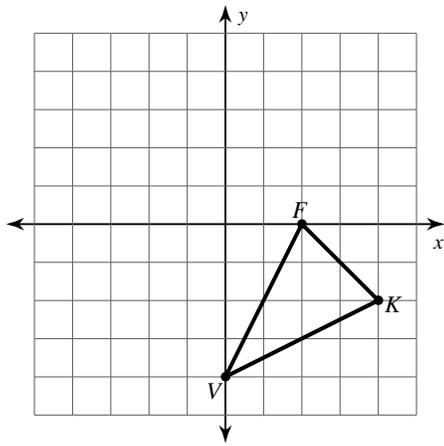


12) translation: 4 units right and 1 unit up

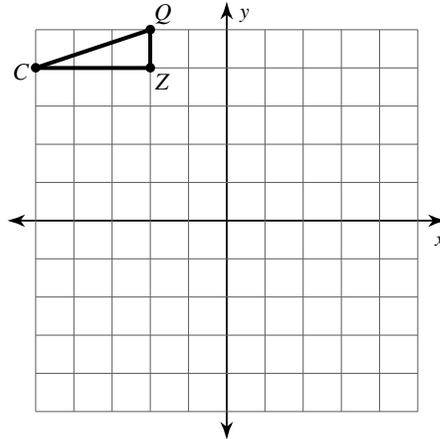


Reflect the figure as indicated. Label the image using prime notation.

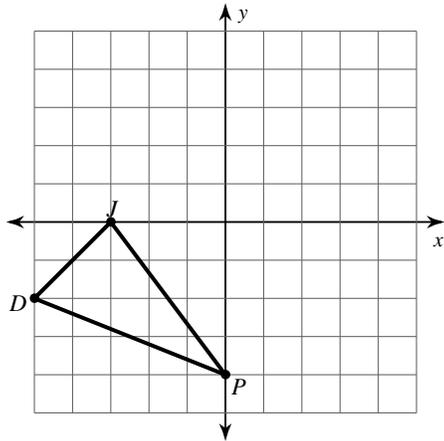
13) reflection across the x-axis



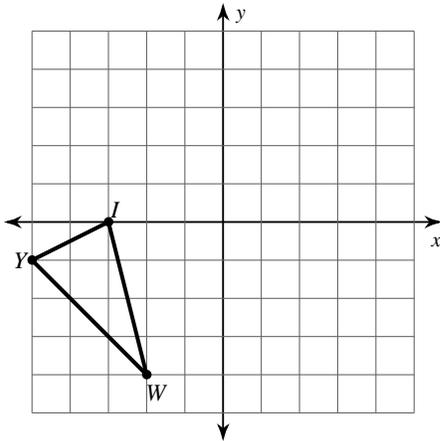
14) reflection across the x-axis



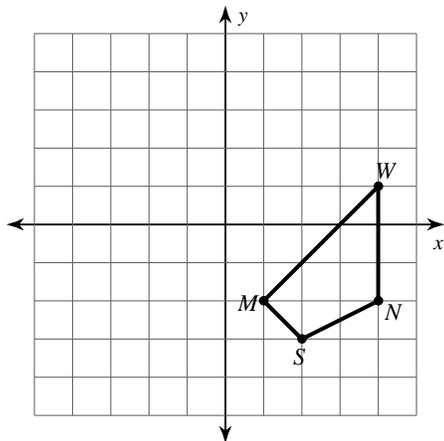
15) reflection across the y-axis



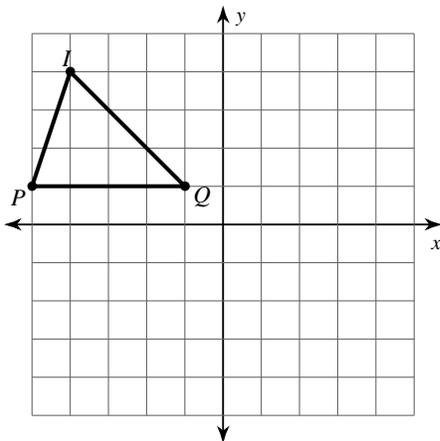
16) reflection across the x-axis



17) reflection across the y-axis

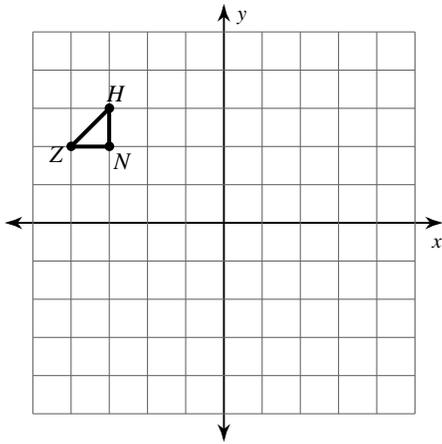


18) reflection across the y-axis

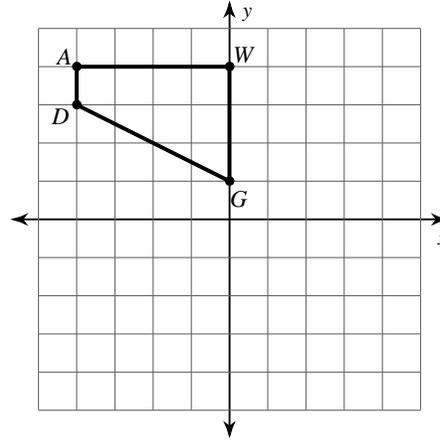


Rotate the figure as indicated. Label the image using prime notation.

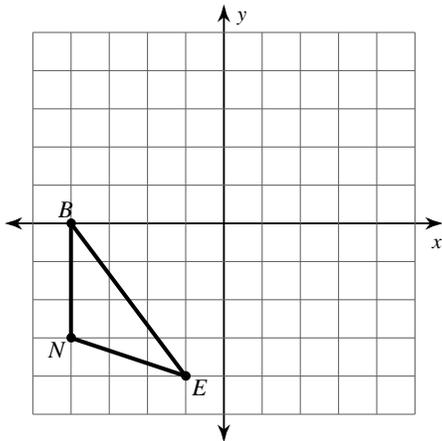
19) rotation  $180^\circ$  about the origin



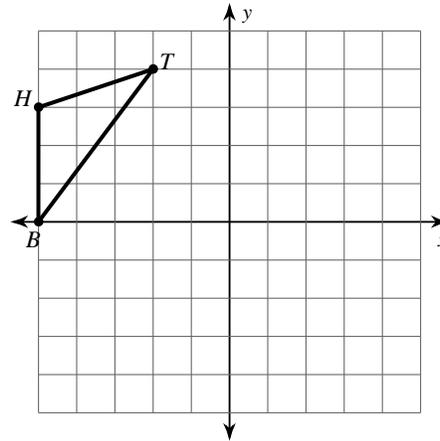
20) rotation  $90^\circ$  counterclockwise about the origin



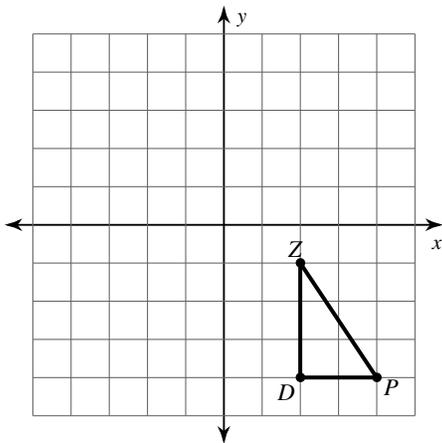
21) rotation  $90^\circ$  counterclockwise about the origin



22) rotation  $180^\circ$  about the origin



23) rotation  $90^\circ$  clockwise about the origin



24) rotation  $180^\circ$  about the origin

