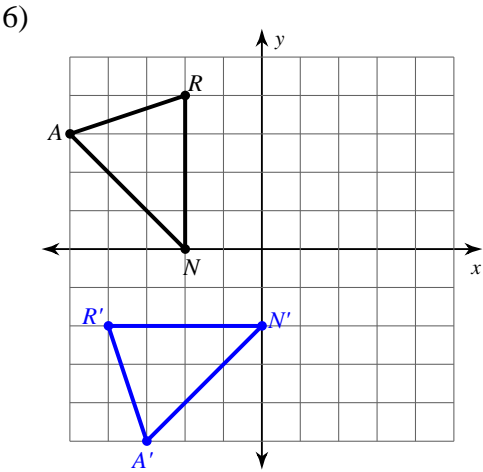
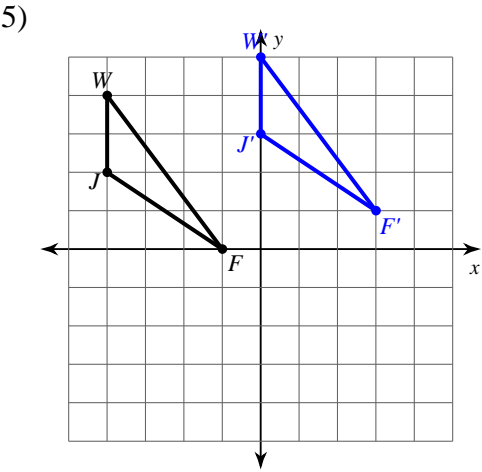
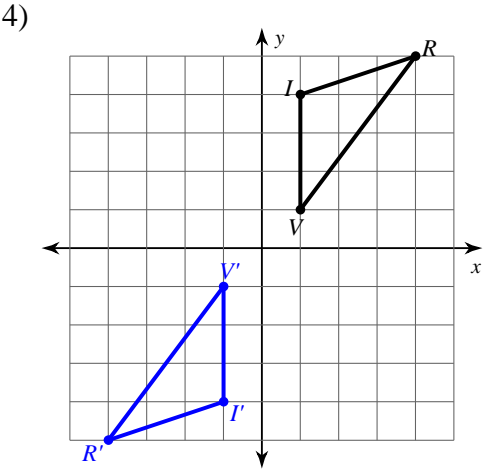
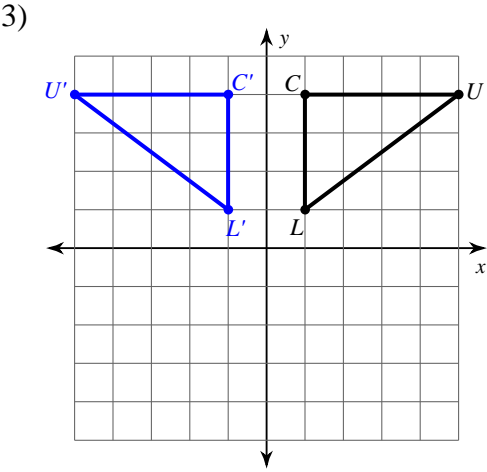
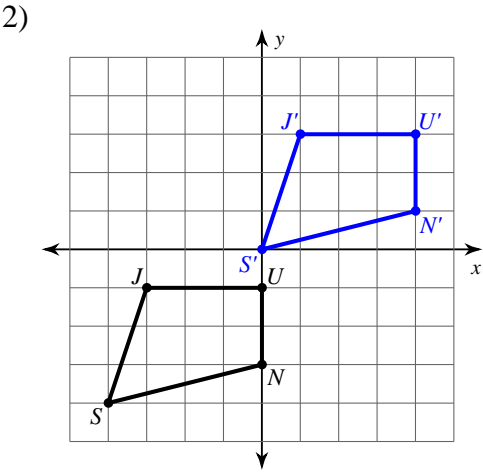
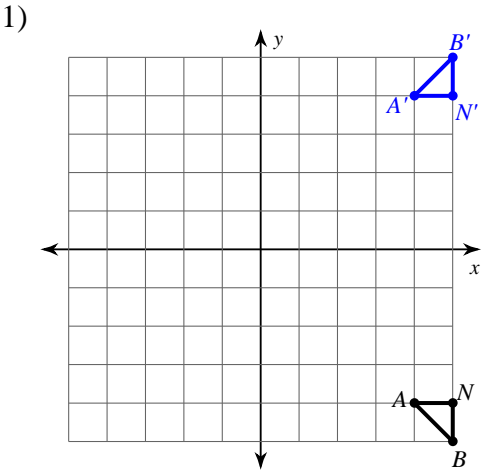


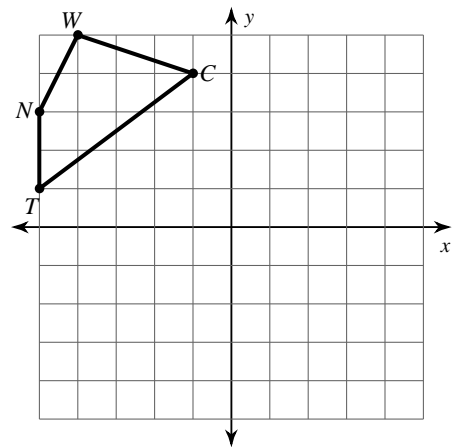
© 2015 Kuta Software LLC. All rights reserved.

Write a rule to describe each transformation.

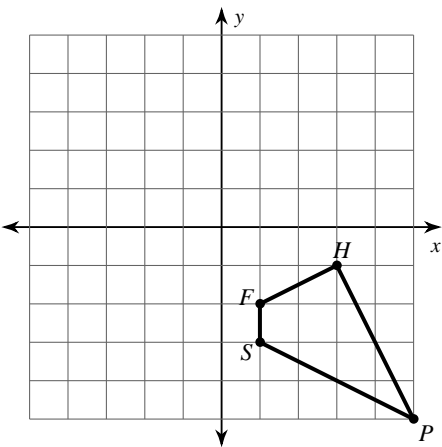


Translate the figure as indicated. Label the image using prime notation.

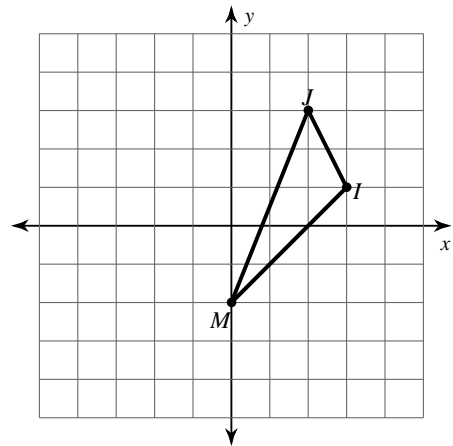
7) translation: 3 units right and 3 units down



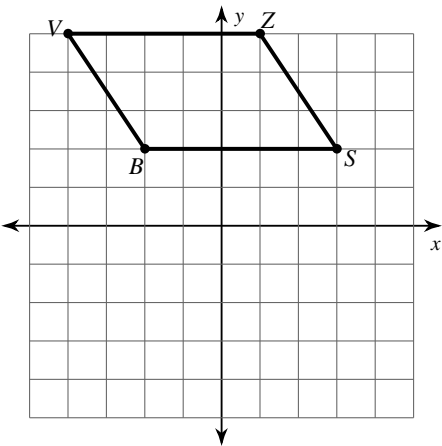
8) translation: 4 units left and 1 unit up



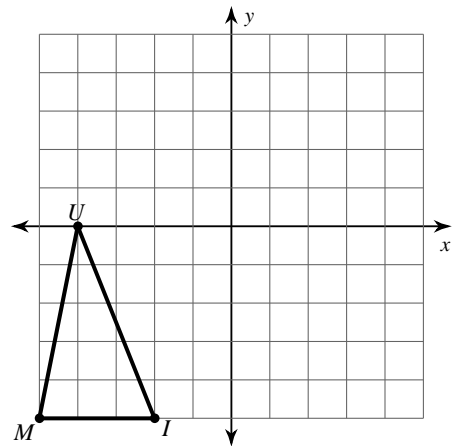
9) translation: 5 units left and 2 units up



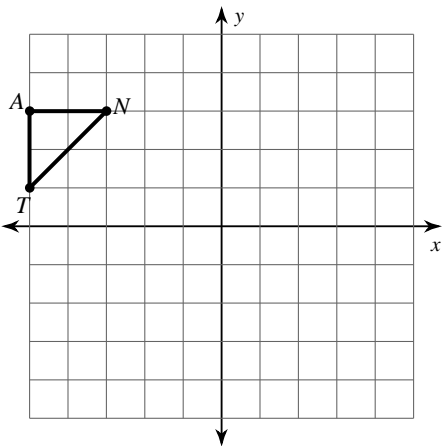
10) translation: 2 units right and 5 units down



11) translation: 2 units right and 2 units up

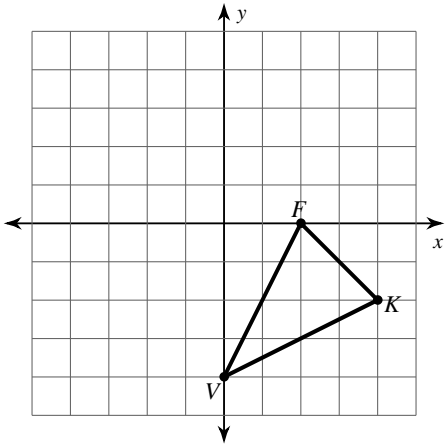


12) translation: 4 units right and 1 unit up

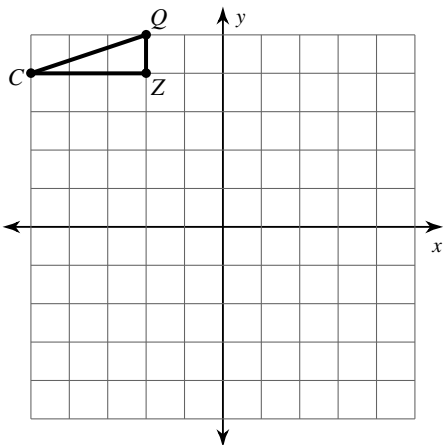


Reflect the figure as indicated. Label the image using prime notation.

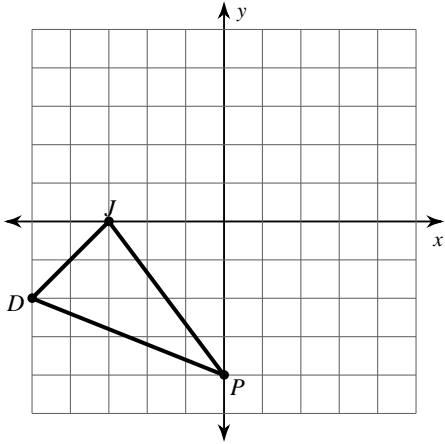
13) reflection across the x-axis



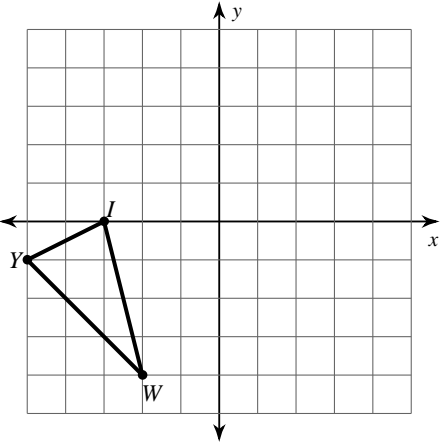
14) reflection across the x-axis



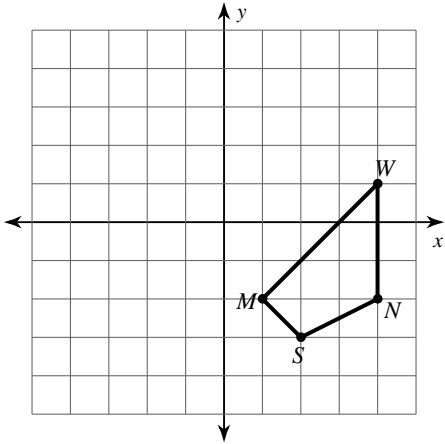
15) reflection across the y-axis



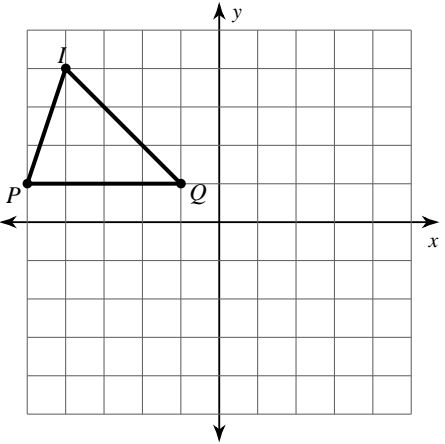
16) reflection across the x-axis



17) reflection across the y-axis

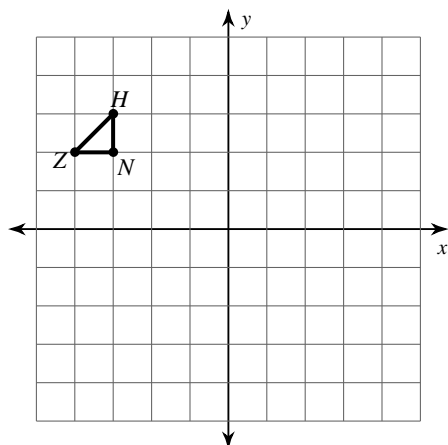


18) reflection across the y-axis

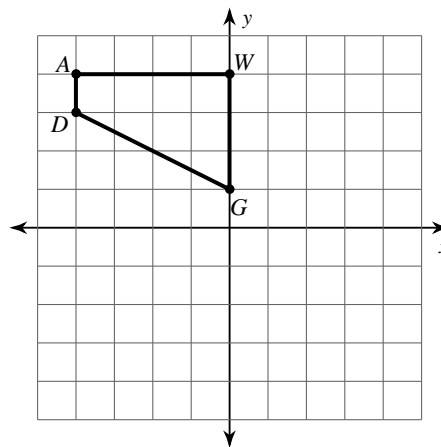


**Rotate the figure as indicated. Label the image using prime notation.**

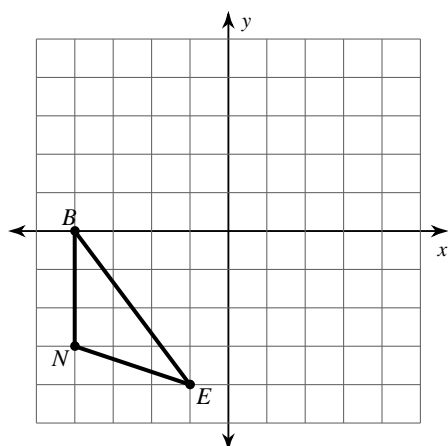
19) rotation  $180^\circ$  about the origin



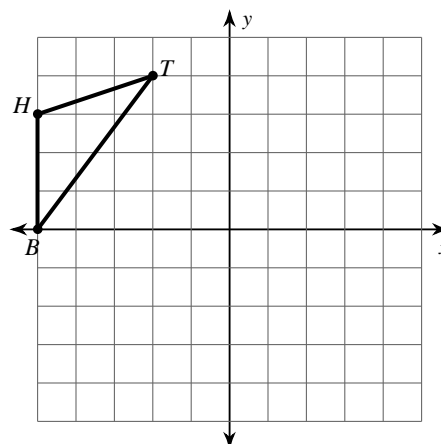
20) rotation  $90^\circ$  counterclockwise about the origin



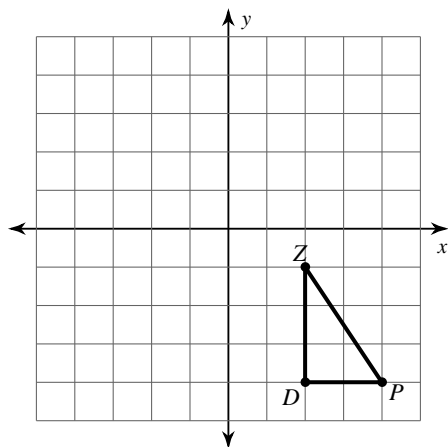
21) rotation  $90^\circ$  counterclockwise about the origin



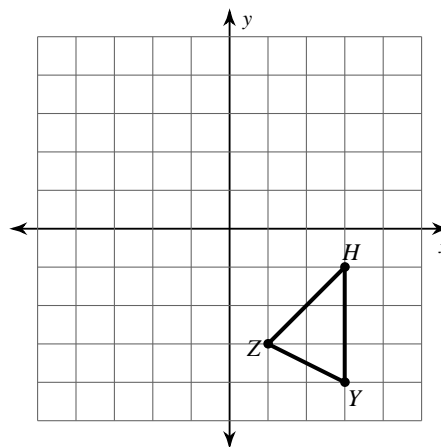
22) rotation  $180^\circ$  about the origin



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



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



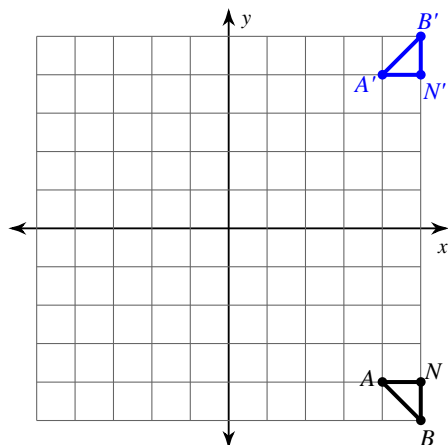
**TRANSFORMATIONS**

© 2015 Kuta Software LLC. All rights reserved.

Date \_\_\_\_\_ Period \_\_\_\_\_

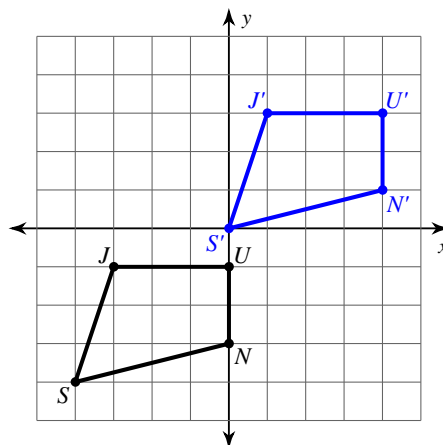
**Write a rule to describe each transformation.**

1)



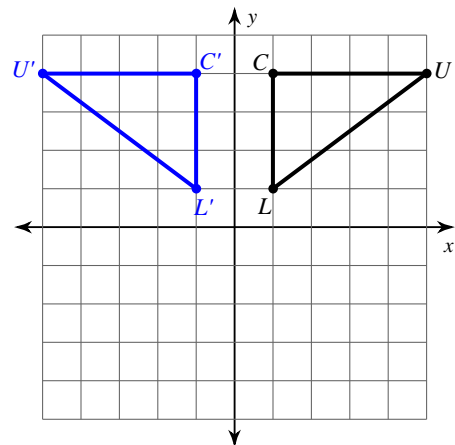
reflection across the x-axis

2)



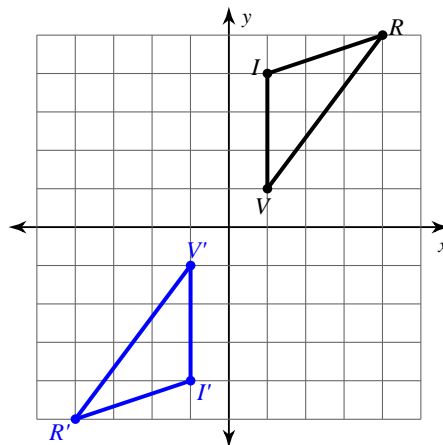
translation: 4 units right and 4 units up

3)

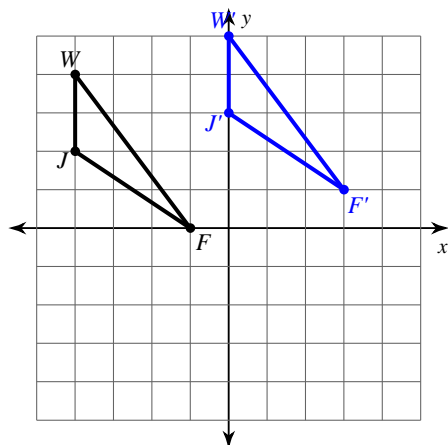


reflection across the y-axis

4)

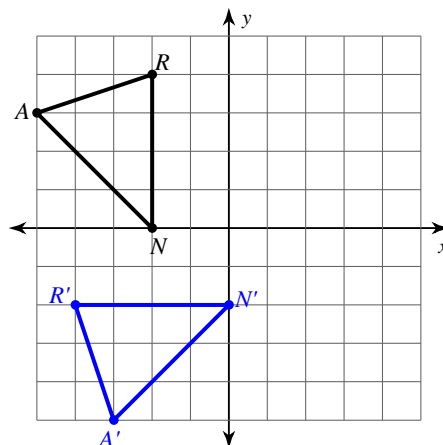
rotation  $180^\circ$  about the origin

5)



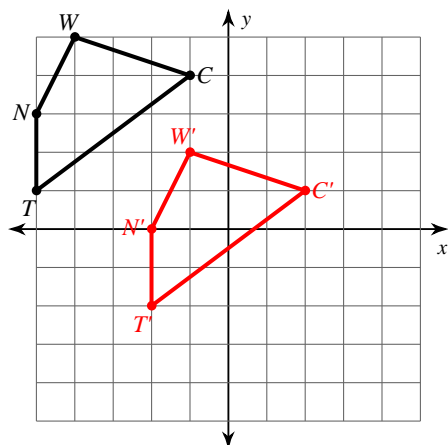
translation: 4 units right and 1 unit up

6)

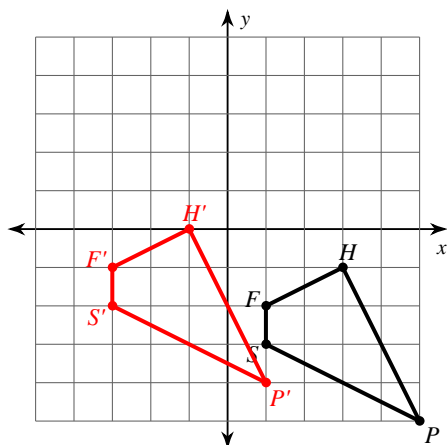
rotation  $90^\circ$  counterclockwise about the origin

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

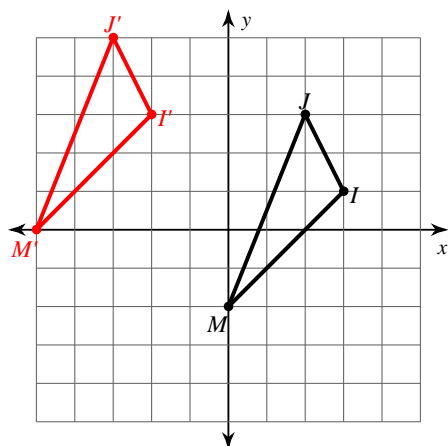
7) translation: 3 units right and 3 units down



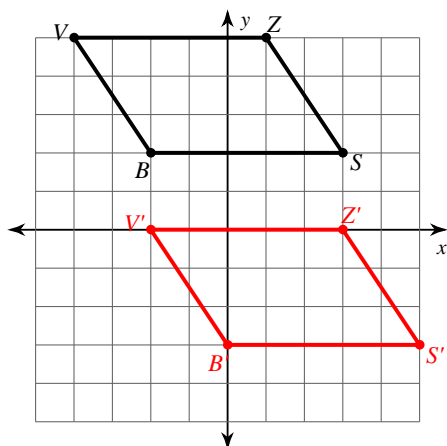
8) translation: 4 units left and 1 unit up



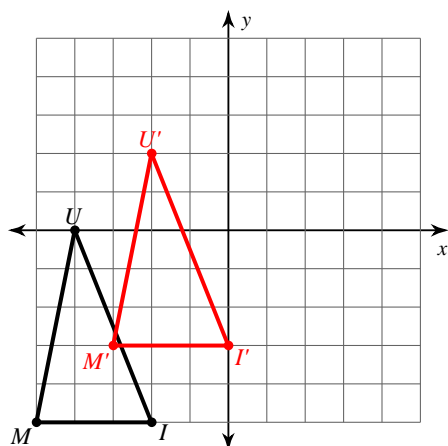
9) translation: 5 units left and 2 units up



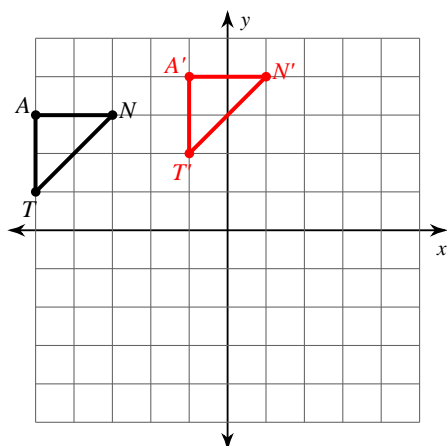
10) translation: 2 units right and 5 units down



11) translation: 2 units right and 2 units up

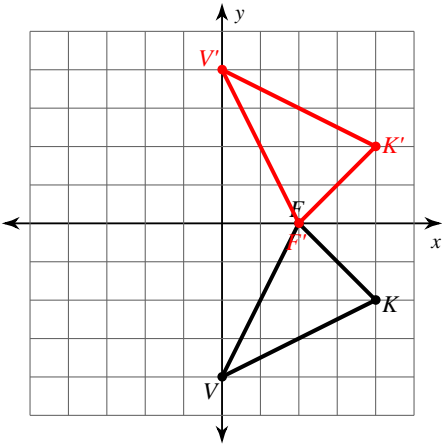


12) translation: 4 units right and 1 unit up

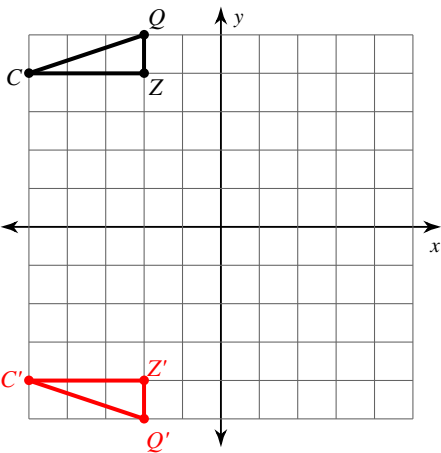


Reflect the figure as indicated. Label the image using prime notation.

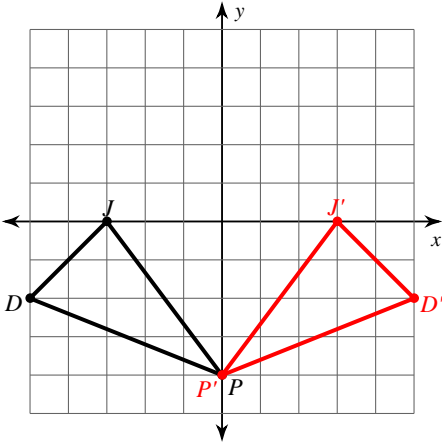
13) reflection across the x-axis



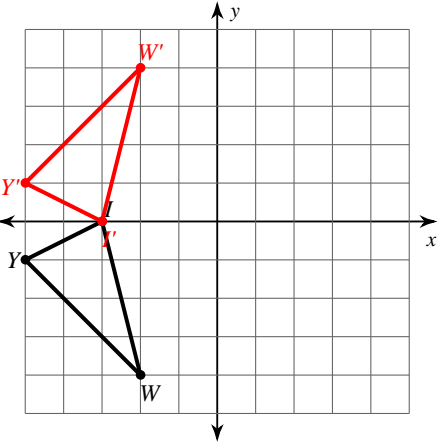
14) reflection across the x-axis



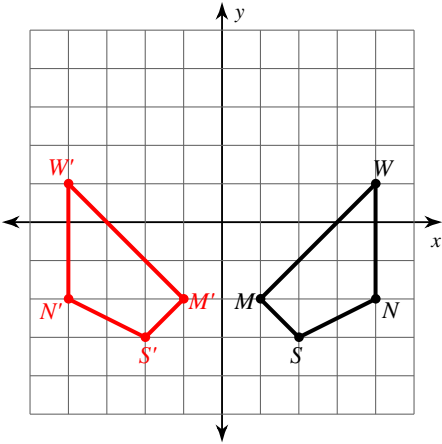
15) reflection across the y-axis



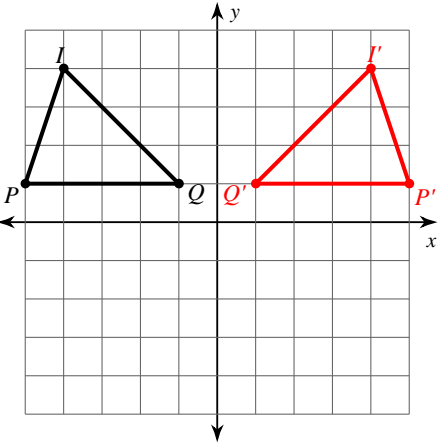
16) reflection across the x-axis



17) reflection across the y-axis

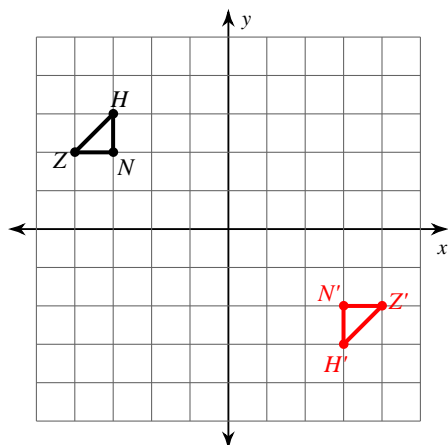


18) reflection across the y-axis

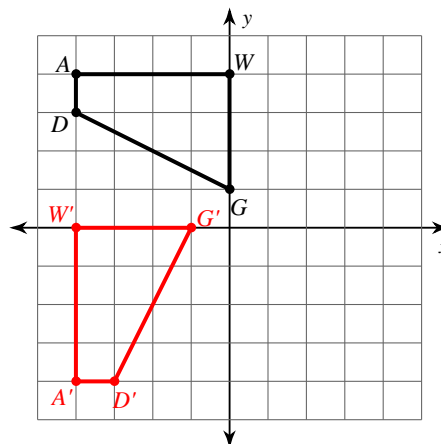


**Rotate the figure as indicated. Label the image using prime notation.**

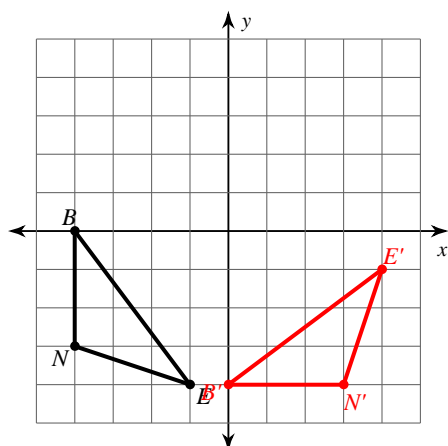
19) rotation  $180^\circ$  about the origin



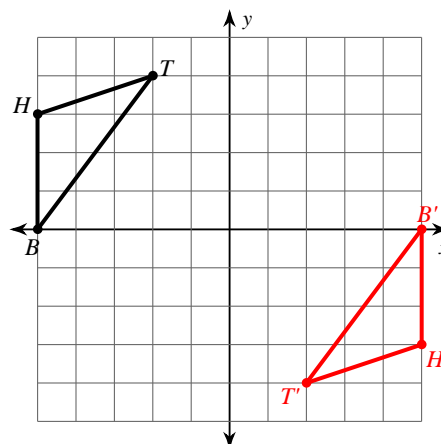
20) rotation  $90^\circ$  counterclockwise about the origin



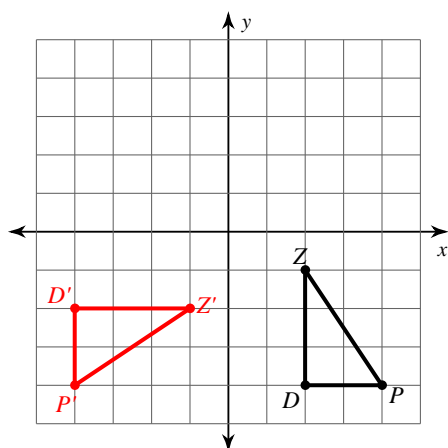
21) rotation  $90^\circ$  counterclockwise about the origin



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



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



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

