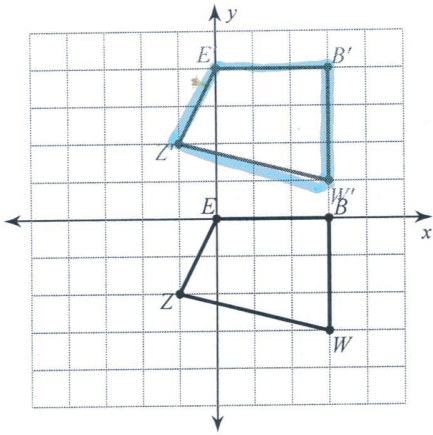


Transformation WS

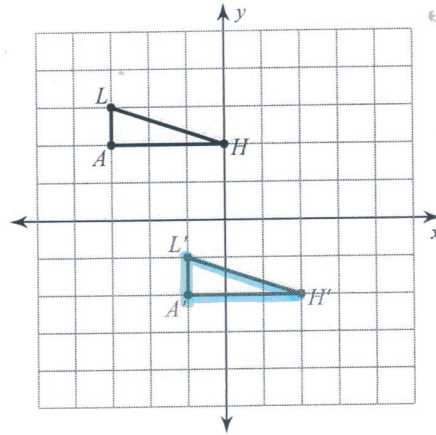
KEY!

Graph the image of the figure using the transformation given.

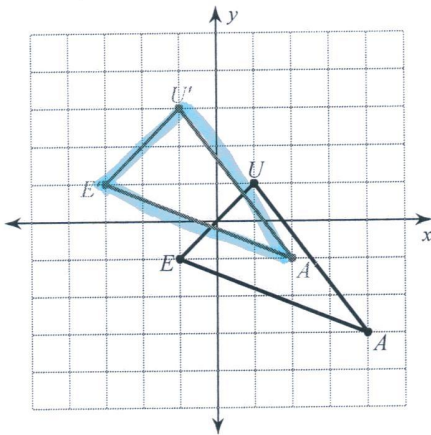
1) translation: 4 units up



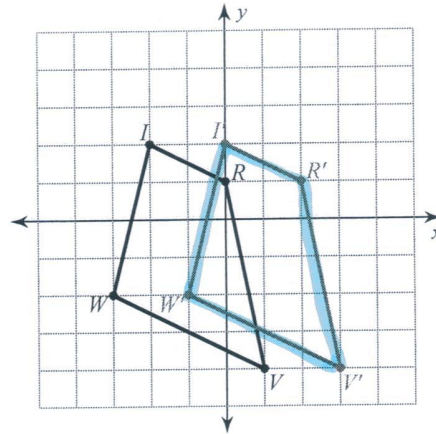
2) translation: 2 units right and 4 units down



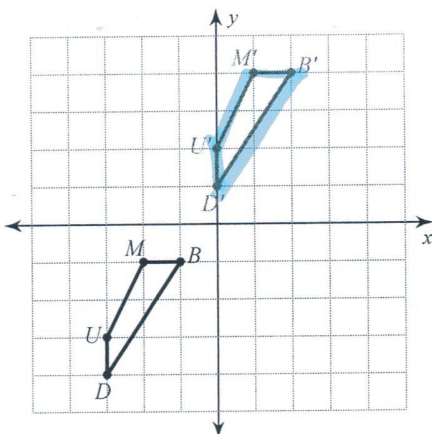
3) translation: 2 units left and 2 units up



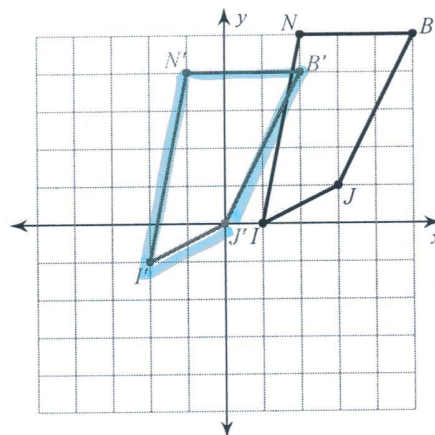
4) translation: 2 units right



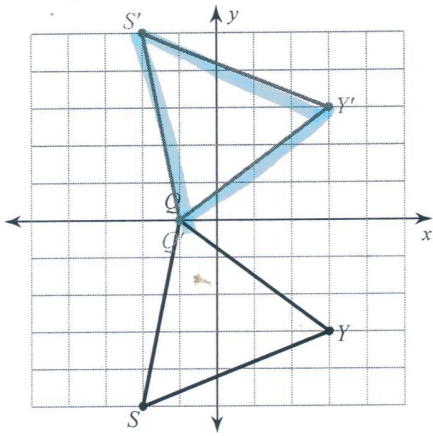
5) translation: 3 units right and 5 units up



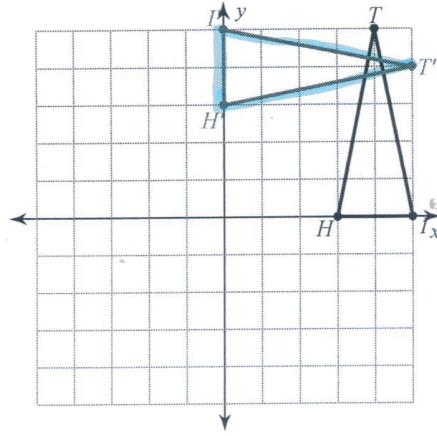
6) translation: 3 units left and 1 unit down



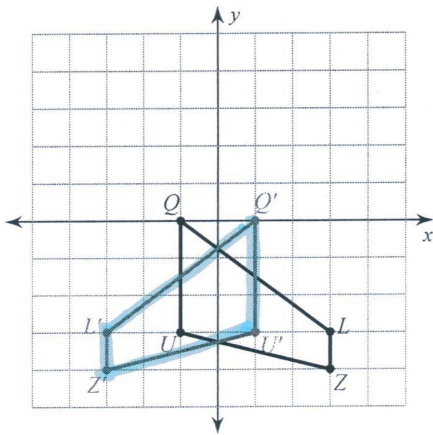
7) reflection across the x-axis



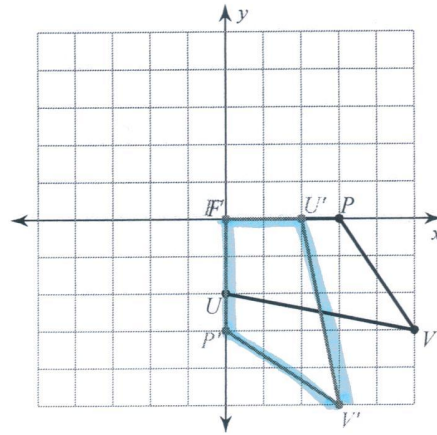
8) reflection across $y = x$



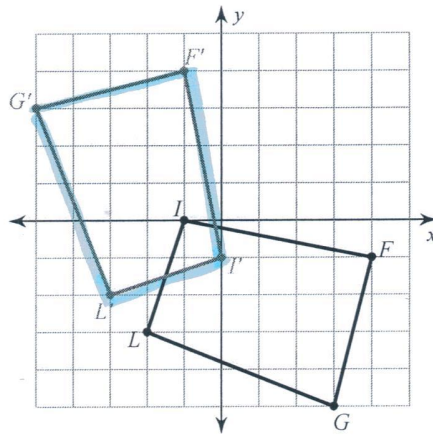
9) reflection across the y-axis



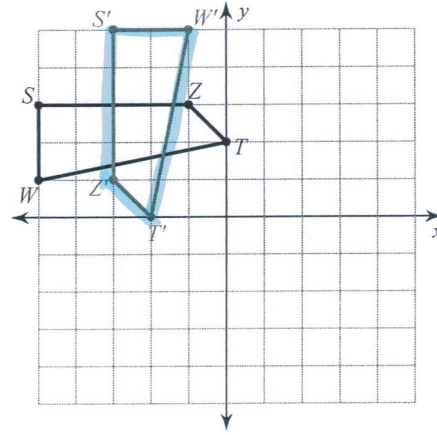
10) reflection across $y = -x$



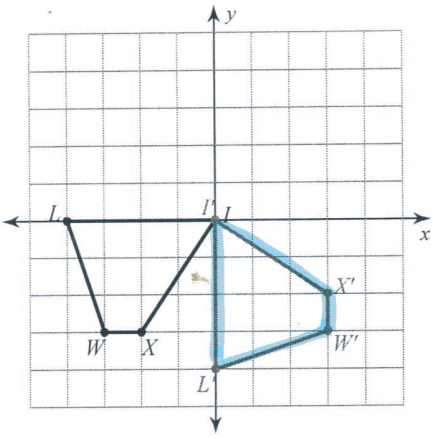
11) reflection across $y = x$



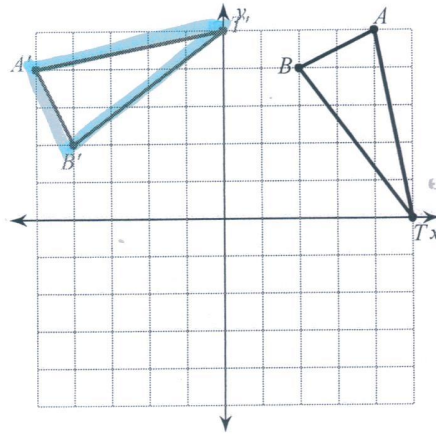
12) reflection across $y = -x$



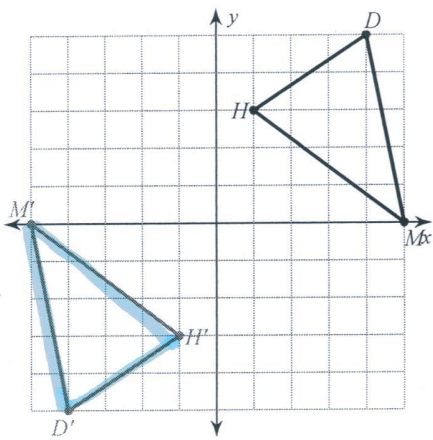
13) rotation 270° clockwise about the origin



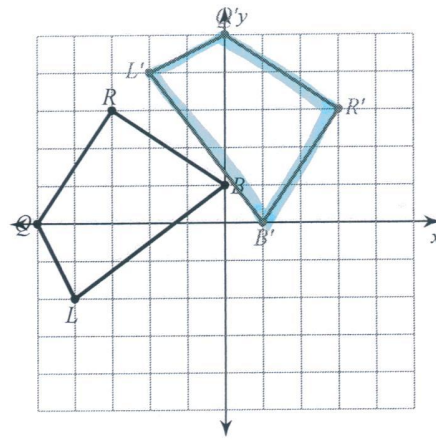
14) rotation 90° counterclockwise about the origin



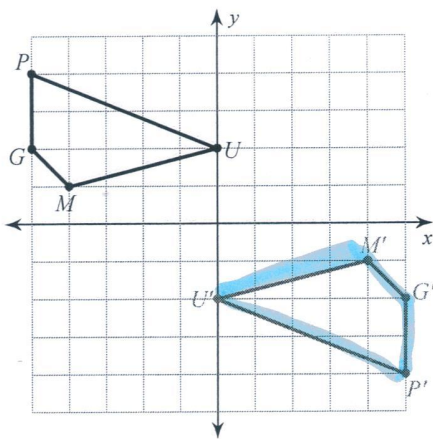
15) rotation 180° about the origin



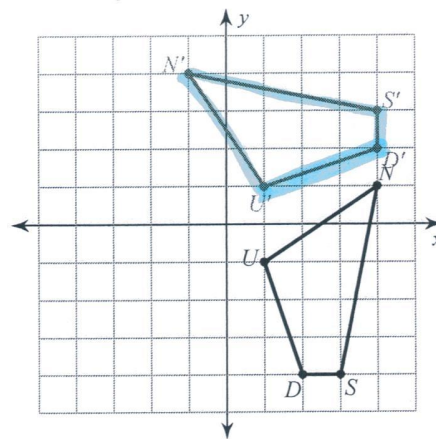
16) rotation 90° clockwise about the origin



17) rotation 180° about the origin

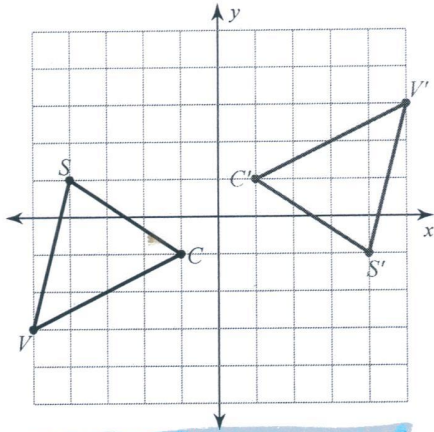


18) rotation 90° counterclockwise about the origin



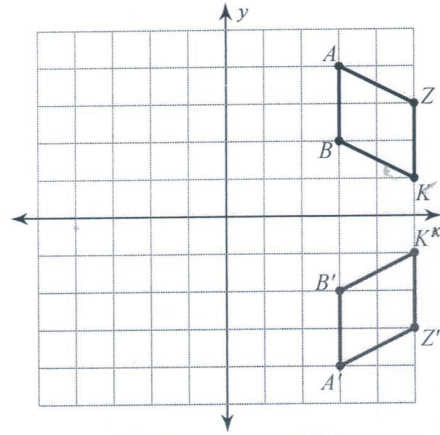
Write a rule to describe each transformation.

19)



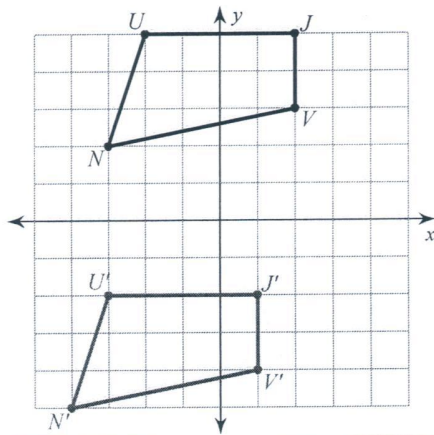
rotation 180° about the origin

20)



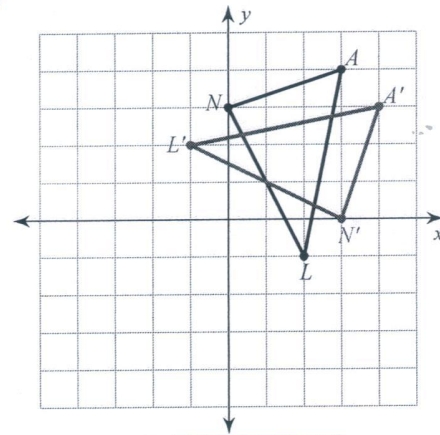
reflection across the x-axis

21)



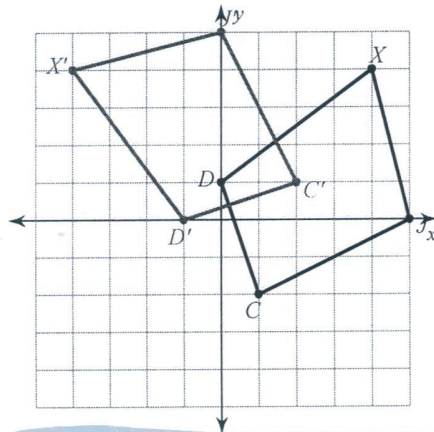
translation: 1 unit left and 7 units down

22)



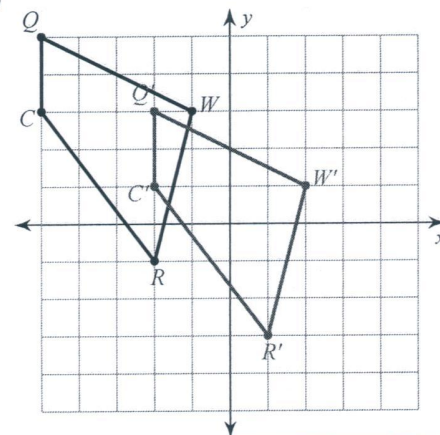
reflection across $y = x$

23)



rotation 90° counterclockwise about the origin

24)



translation: 3 units right and 2 units down