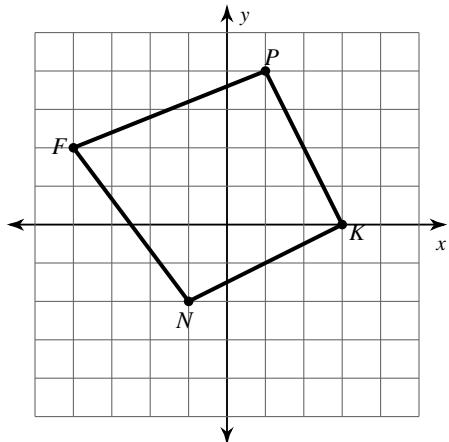


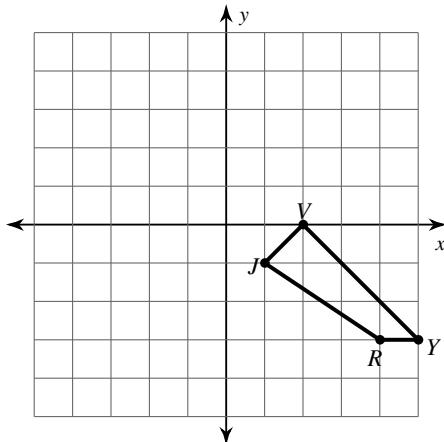
# Rotations

**Graph the image of the figure using the transformation given.**

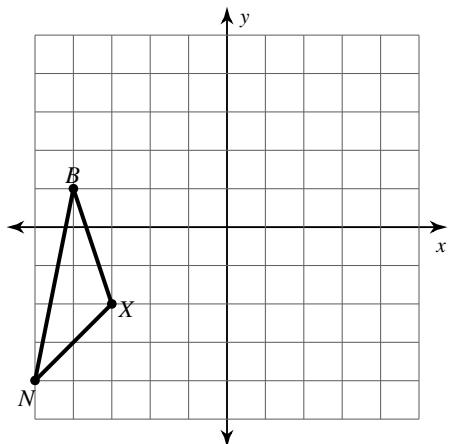
- 1) rotation
- $180^\circ$
- about the origin



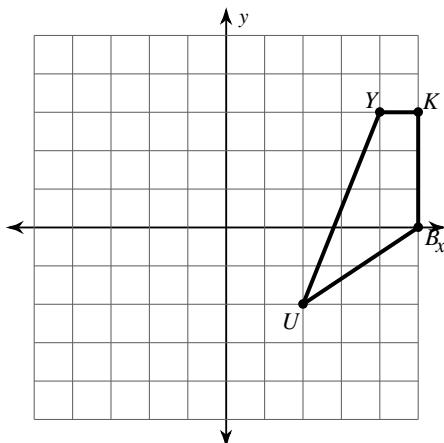
- 2) rotation
- $180^\circ$
- about the origin



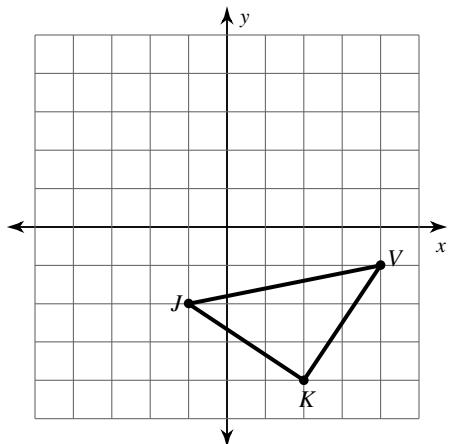
- 3) rotation
- $90^\circ$
- counterclockwise about the origin



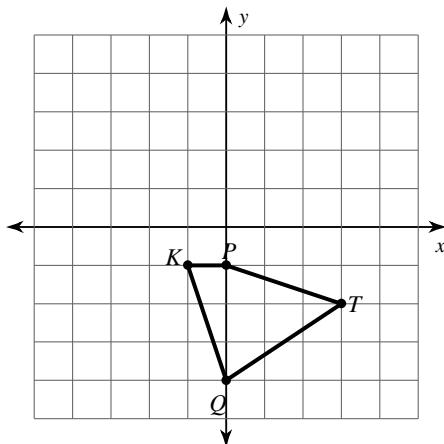
- 4) rotation
- $90^\circ$
- clockwise about the origin



- 5) rotation
- $90^\circ$
- clockwise about the origin

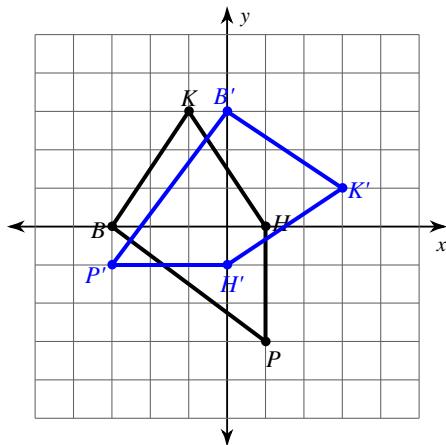


- 6) rotation
- $180^\circ$
- about the origin

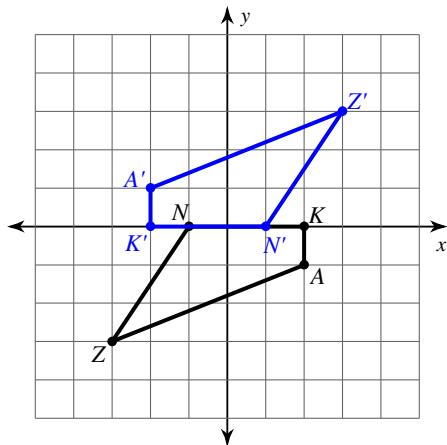


**Write a rule to describe each transformation.**

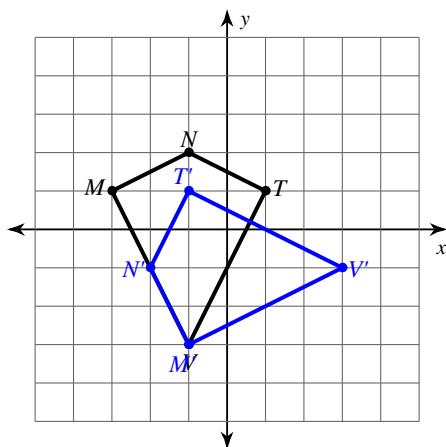
7)



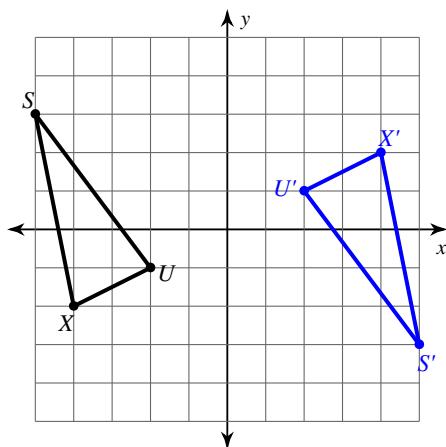
8)



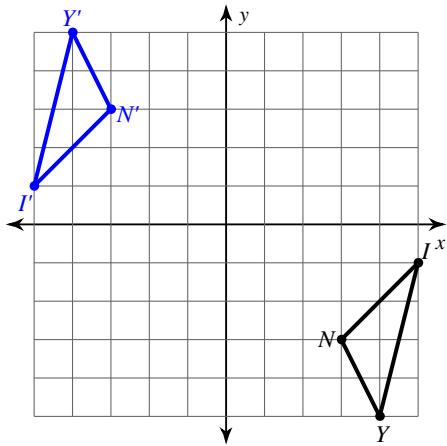
9)



10)



11)



12)

