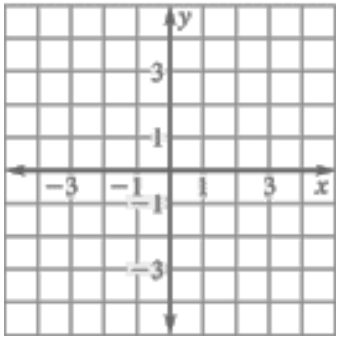
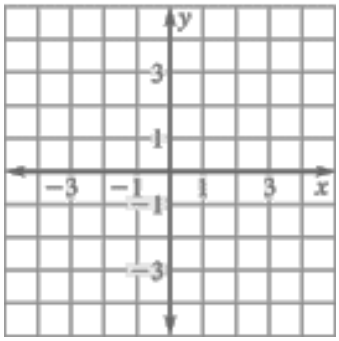
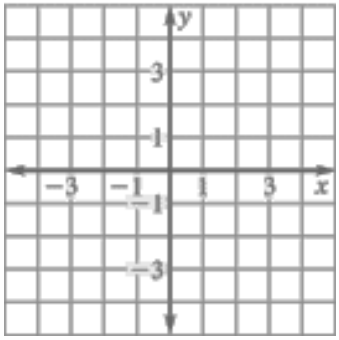
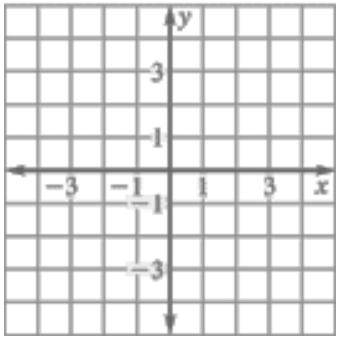
Transformations in the Coordinate Plane

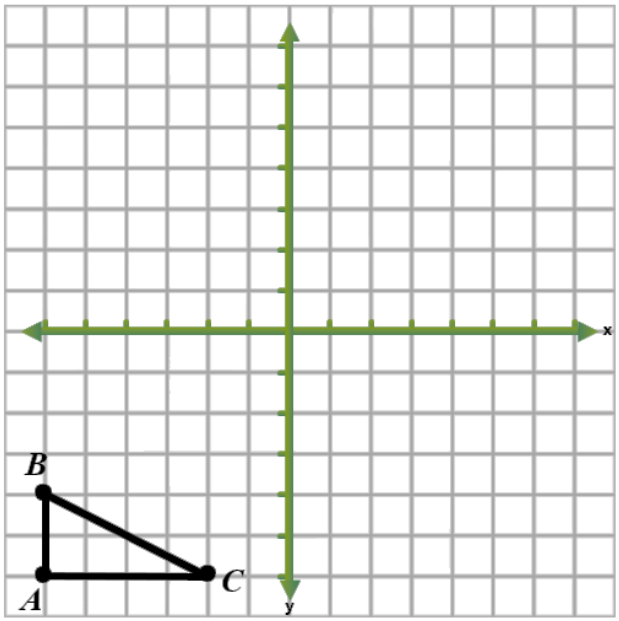
Goals: *Reflect figures in the coordinate plane across various lines
*Translate figures in the coordinate plane
*Rotate figures around a point by 90° and 180°
*Dilate figures in the coordinate plane by scale factors

Transformations:

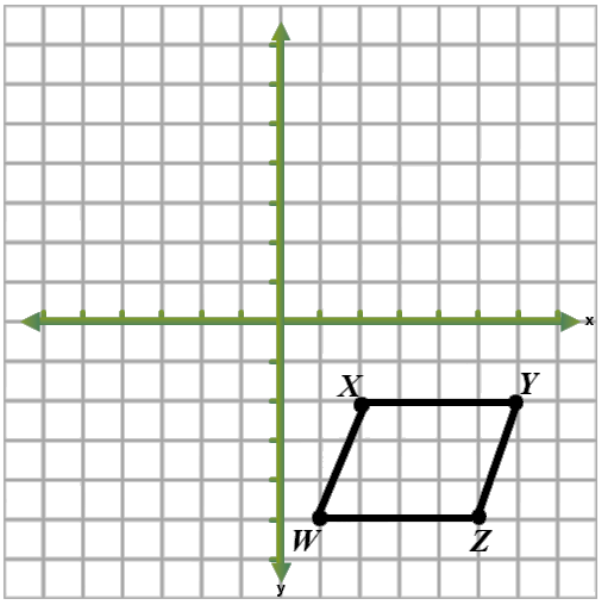
TRANSFORMATIONS			
Type	**Explanation**	**Symbols**	**Picture**
Reflection			
Translation			
Dilation			
Rotation			

Perform the transformation indicated.

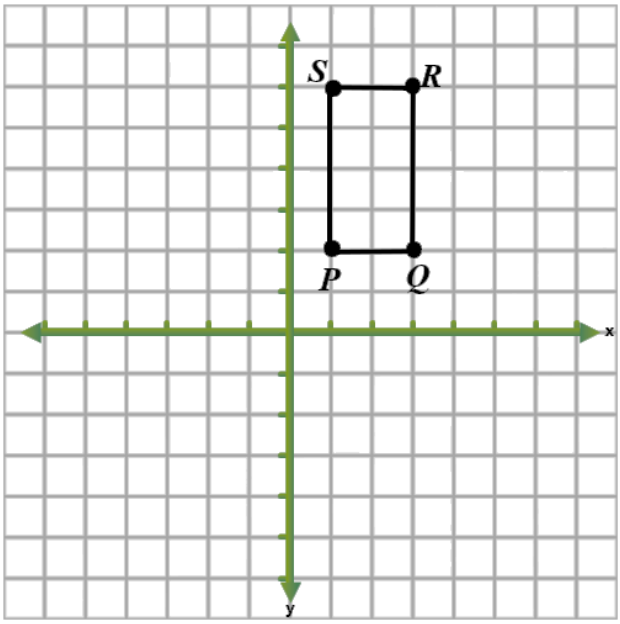
Ex: Reflect ΔABC over the x-axis.



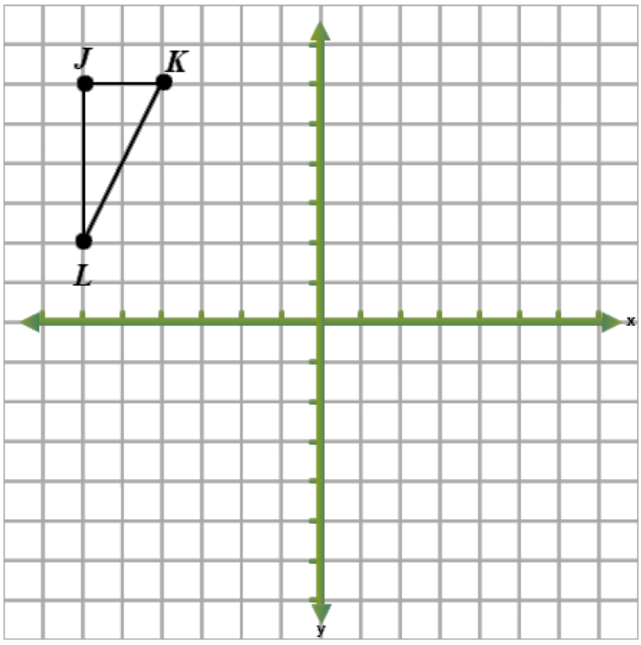
Ex: Translate parallelogram $WXYZ$ 5 units up and 3 units left



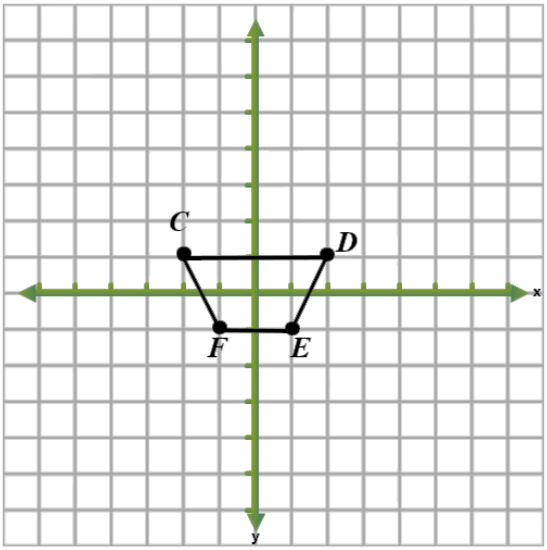
Ex: Rotate rectangle $PQRS$ by 90° *counterclockwise* about the origin



Ex: Rotate ΔJKL 180° about the origin



Ex: Dilate trapezoid *CDEF* by a scale factor of 2.



Ex: Reflect pentagon *RSTUV* across the line $x = -1$