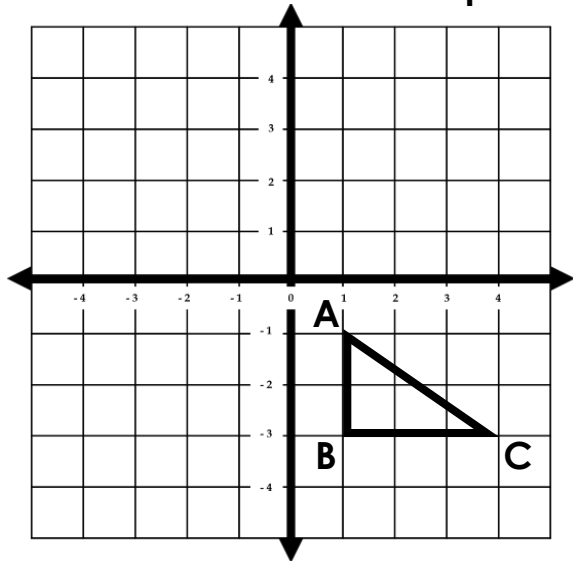
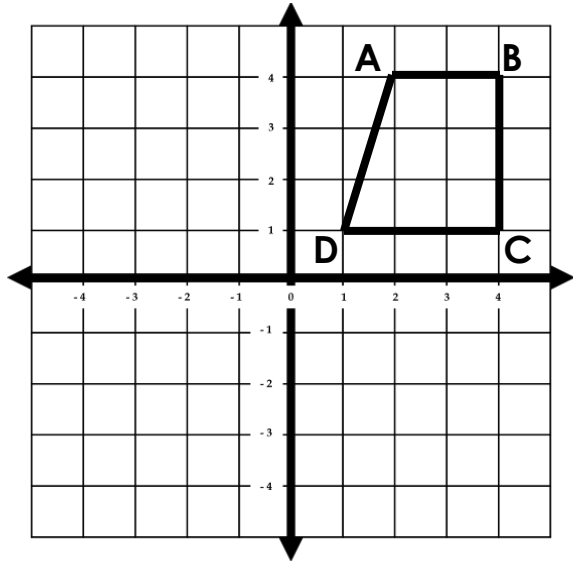


# Transformations

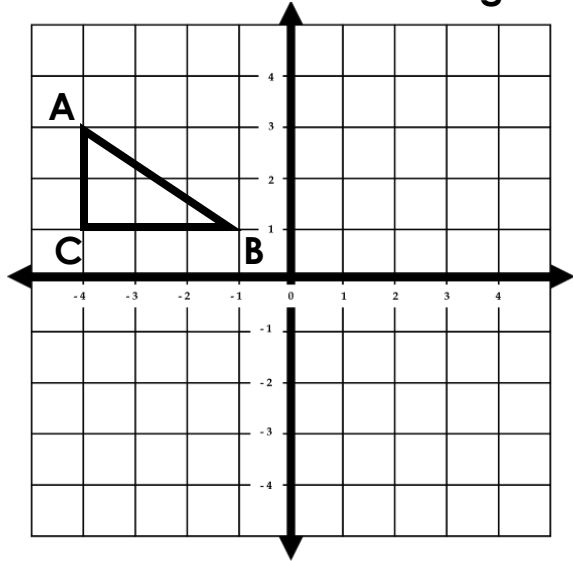
Graph the translation of  $\triangle ABC$  3 units left and 4 units up.



Graph the reflection of quadrilateral ABCD across the x-axis.



Graph the rotation of  $\triangle ABC$   $90^\circ$  clockwise around the origin.



Type	Rule
right $a$ units	
left $a$ units	
up $b$ units	
down $b$ units	

Type	Rule
across the x-axis	
across the y-axis	

Type	Rule
$180^\circ$	
$90^\circ$ clockwise	
$90^\circ$ counter-clockwise	