Observations

Transformation		Rule
Reflection across the y-axis	(<i>x</i> , <i>y</i>) -	→ (,)
Reflection across the <i>x</i> -axis	(x, y) -	→ (,)
Reflection across the line <i>y</i> = <i>x</i>	(x, y) -	→ (,)
Translation given by $\mathbf{v} = (a, b)$	(<i>x</i> , <i>y</i>) -	→ (,)
90° counterclockwise rotation about the origin	(x, y) -	→ (,)
90° clockwise rotation about the origin	(x, y) -	→ (,)
180° rotation about the origin	(x, y) -	* (,)