

Transformation Rules.

Translations:

Horizontal

$$T(x, y) \Rightarrow (x+a, y)$$

Vertical

$$T(x, y) \Rightarrow (x, y+b)$$

Slanting

$$T(x, y) \Rightarrow (x+a, y+b)$$

Note: $T\langle 5, -2 \rangle$ means $T(x+5, y-2)$

Reflections

$$R_{y\text{-axis}}(x, y) \Rightarrow (-x, y)$$

$$R_{x\text{-axis}}(x, y) \Rightarrow (x, -y)$$

$$R_{y=x}(x, y) \Rightarrow (y, x)$$

Rotations:

$$R_{90^\circ}(x, y) \Rightarrow (-y, x)$$

$$R_{180^\circ}(x, y) \Rightarrow (-x, -y)$$

$$R_{270^\circ}(x, y) \Rightarrow (y, -x)$$

Note:

$R(A)$ means 90° rotation of point A about the origin.

$R(P)$ means 300° rotation of point P about the point A.