**RULES**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**TRANSLATIONS**

**Move Right** (x,y) →( x+n , y )

**Move Left** (x,y) →( x-n , y )

**Move Up** (x,y) →( x , y+n )

**Move Down** (x,y) →( x , y-n )

**REFLECTION**

**Reflect over x-axis** (x,y)→ ( x , -y )

**Reflect over y-axis** (x,y)→ ( -x , y )

**Reflect over y = x** (x,y)→ ( y , x )

**Reflect over y = -x** (x,y)→ ( -y , -x )

**ROTATION**

**Rotation 90° CW (x,y)→ ( y , -x )**

**Same as 270 degrees counterclockwise**

**Rotation 90° CCW (x,y)→ (- y , x )**

**Same as 270 degrees clockwise**

**Rotation 180° (x,y)→ ( -x , -y )**