Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_ Number:\_\_\_\_\_\_\_\_\_

**9.1 Classwork – How does it change?**

**Translations**

For each translation rule, provide an example and describe the movement.

\_\_\_\_ Movement: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ Movement: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ Movement: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ Movement: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In translations, what properties are preserved (stay the same)? Circle one for each.

* Shape? YES or NO
* Size? YES or NO
* Orientation (Order of points)? YES or NO

Any other observations?

**Reflections**

For each reflection across different lines, give the general rule for the coordinate points.

Reflection across the y-axis:

Reflection across the x-axis:

Reflection across the line y=x:

Reflection across the line y=x:

What do you notice about reflecting over lines like x=2 or y=-3?

In reflections, what properties are preserved? Circle one for each.

* Shape? YES or NO
* Size? YES or NO
* Orientation? YES or NO

Any other observations?

**Rotations**

For each rotation, give the general rule for the coordinate points.

Rotation about the origin 90° CW:

Rotation about the origin 180° CW:

Rotation about the origin 270° CW:

Rotation about the origin 360° CW:

Rotation about the origin 90° CCW:

Rotation about the origin 180° CCW:

Rotation about the origin 270° CCW:

Rotation about the origin 360° CCW:

In rotations, what properties are preserved? Circle one for each.

* Shape? YES or NO
* Size? YES or NO
* Orientation? YES or NO

Any other observations?