

	translations "slide"	reflections "flip"	rotations "turn"	dilations "reduce or enlarge"
examples				
details	<p>How far did it move and in which direction? Give distance (in units) and direction (horizontal or vertical). In the example above, the original figure was translated 6 units horizontally and 2 units vertically. I determined this by counting the distance one point moved to its corresponding point on the new figure.</p>	<p>Where is the line of reflection? For our purposes, we have used either the x or y axis for our line of reflection. Think about where the paper must be folded for the two images to match up.</p>	<p>How far did it turn and in what direction? Rotations turn around a fixed point (the center of rotation). We have focused on 90°, 180°, and 270° turns. There are two directions you can turn. Clockwise (think about the hands on a clock) or counter clockwise (the opposite of a clock).</p>	<p>How much bigger or smaller is the transformed figure? The scale factor will tell you how much bigger or how much smaller. If the scale factor is greater than one, the figure is enlarging. If it is greater than zero, but less than one (ex. $\frac{1}{4}$, $\frac{1}{2}$), it is shrinking the figure.</p>
coordinates	<p>To transform the coordinates, either add or subtract to x for horizontal slides and add or subtract to y for vertical slides. In the example above, you would add 6 to the x value and add 2 to the y value. For example, the coordinates for C(-3,2) would become C'(-3+6, 2+2) or (3,4)</p>	<p>To transform the coordinates in a reflection over the y-axis, change the sign for x. To transform the coordinates in a reflection over the x-axis, change the sign for y.</p>	<p>The "rules" for rotations are very complicated. The easiest thing to do is to figure out which quadrant the transformed point would be in and go from there. Remember the corresponding points must make the desired angle when connected with the origin as the vertex of the angle.</p>	<p>To transform the coordinates, multiply BOTH x and y by the scale factor. This can be tricky if you don't remember how to multiply with fractions. Just turn the whole number into a fraction by putting it over one and then multiply straight across and simplify.</p>
	Results in Congruent Figures	Results in Congruent Figures	Results in Congruent Figures	Results in Similar Figures