13. What is Preserved?

First & Last Name: _____ **Class:** _____

As we have discussed, the dilation of a pre-image produces an image that is geometrically similar to the pre-image. Use this fact and any additional experimentation you need to do (that is, creating actual dilations on graph paper that will allow you to make conjectures) to figure out what changes and what sames the same when a pre-image is dilated. **Be sure to explain your reasoning!**

1. Angles

2. Coordinate Points

3. Lengths (how does the distance between any two points change?)

4. Collinear Points (do they stay collinear?)

5. Orientation (if we label the vertices of some triangle as A, B, and C in a clockwise direction, dilate the triangle and label the corresponding points A', B', and C', are A', B', and C' still in clockwise order?)

6. Parallel Lines (do they remain parallel?)