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

CC GEOMETRY TROICI

**MINI-LESSON #9: TRANSFORMATIONS**

**TOPIC 1: TYPES OF TRANSFORMATION**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **KEY WORD** | **RIGID MOTION?** | **DIRECT/OPPOSITE ISOMETRY** | **IMAGE** |
| **REFLECTION** |  |  |  | Image result for REFLECTION SHAPES |
| **ROTATION** |  |  |  |  |
| **TRANSLATION** |  |  |  | Image result for TRANSLATION SHAPES LABELED |
| **DILATION** |  |  |  | Image result for DILATION SHAPES LABELED |

**RULES FOR ROTATIONS AND REFLECTIONS:**

**TOPIC 2: LINE DILATIONS**

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**TOPIC 3: MAPPING A REGULAR POLYGON ONTO ITSELF**

Definition: Regular Polygon

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

When a polygon is rotated onto itself, it rotated by a multiple of the exterior angles in a polygon.

|  |  |  |
| --- | --- | --- |
| **SHAPE** | **NUMBER OF SIDES** | **DEGREES OF EXTERIOR ANGLE** |
|  |  |  |
| Image result for REGULAR SQUARE |  |  |
| Image result for REGULAR PENTAGON |  |  |
| Image result for REGULAR HEXAGON |  |  |
| Image result for REGULAR HEPTAGON |  |  |
| Image result for REGULAR OCTAGON |  |  |
| Image result for REGULAR NONAGON |  |  |
| Image result for REGULAR DECAGON |  |  |

**TOPIC 4: COMPOSITION OF TRANSFORMATIONS**

|  |  |
| --- | --- |
| **COMPOSITOIN OF RIGID MOTIONS** | **SIMILARITY TRANSFORMATION** |
|  |  |
| Image result for COMPOSITION OF TRANSFORMATIONS |  |