Geometry CC – Mr. Valentino Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Unit 4 Lesson 1: Symmetry Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_

**AIM**: Identify and differentiate the three different types of symmetry: *line, point, and rotational*.

**Do Now:** You will be given a shape with a pattern on it. Find a classmate that is your match.

It’s time to discuss an important part of geometry…symmetry!



A line of symmetry is a line that divides a figure into \_\_\_\_\_\_\_\_ mirror images. The figure is mapped onto \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by a **reflection** in this line.





Let’s discuss some lines of symmetry on geometric figures:





A figure has **point symmetry** when it looks the same when it looks the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as it does right-side-up (180 degree rotation).





A figure has **rotational symmetry**if when rotating (turning or spinning) the figure around a center point by less than 360º, the figure appears \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The number of positions in which the rotated object appears unchanged is called the **order of the symmetry.**

Let’s examine the point and rotational symmetry of some geometric figures:





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

**Does this figure have line, point, and/or rotational symmetry?**

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| --- | --- | --- | --- | --- |
| **Figure #** | **Line Symmetry?** | **Point Symmetry?** | **Rotational Symmetry?** | **Of Order?** |
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