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| **LG #** | **G01** | **Standards:** | **G-CO.1.1, G-CO.1.2, G-CO.1.3, G-CO.1.4, G-CO.1.5** |
| **4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond instruction to the standard.****The student will be able to:*** Create equations of lines of reflection for regular polygons other than quadrilaterals.
* Explain how the order in which a sequence of transformation is performed may result in different outcomes.

**No major errors or omissions regarding the score 4.0 content.** |
| **3.5** | In addition to 3.0, in-depth inferences and applications with partial success. |
| **3.0** | **Students will be able to experiment with transformations in the plane.****The student will be able to:*** [Describe transformations as functions that take points in the plane as inputs and give other points as outputs. (G-CO.1.2)](http://www.cpalms.org/Public/PreviewResource/Preview/59164)
* [Compare transformations that preserve distance and/or angle measure to those that do not (e.g., translation versus horizontal stretch). (G-CO.1.2)](http://www.cpalms.org/Public/PreviewResource/Preview/59166)
* Describe the rotations and reflections that carry a [parallelogram](http://www.cpalms.org/Public/PreviewResource/Preview/59700) or [trapezoid](http://www.cpalms.org/Public/PreviewResource/Preview/56786) onto itself. (G-CO.1.3)
* Develop definitions of [rotations](http://www.cpalms.org/Public/PreviewResource/Preview/70366), [reflections](http://www.cpalms.org/Public/PreviewResource/Preview/70371), and [translations](http://www.cpalms.org/Public/PreviewResource/Preview/70382) in terms of angles, circles, perpendicular lines, parallel lines, and line segments. (G-CO.1.4)
* [Specify a sequence of transformations that will carry a given figure onto another.](http://www.cpalms.org/Public/PreviewResource/Preview/70570) ([G-CO.1.5](http://www.cpalms.org/Public/PreviewResource/Preview/70536))

**No major errors or omissions regarding the score 3.0 content (simple or complex).** |
| **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of 3.0 content. |
| **2.0** | **The student recognizes and describes specific terminology such as:**

|  |  |  |
| --- | --- | --- |
| * Angle
 | * Line Segment
 | * Circular Arc
 |
| * Circle
 | * Point
 | * Transformation
 |
| * Perpendicular Line
 | * Line
 | * Input
 |
| * Parallel Line
* Rectangle
* Regular Polygon
* Translations
* Rotational Symmetry
 | * Distance
* Parallelogram
* Rotations
* Plane
* Sequence
 | * Output
* Trapezoid
* Reflections
* Reflectional (line) Symmetry
 |

**The student will be able to:*** Know definitions of [angle](http://www.cpalms.org/Public/PreviewResource/Preview/54956), [circle](http://www.cpalms.org/Public/PreviewResource/Preview/58091), [perpendicular lines](http://www.cpalms.org/Public/PreviewResource/Preview/55444), [parallel lines](http://www.cpalms.org/Public/PreviewResource/Preview/56751), and [line segment](http://www.cpalms.org/Public/PreviewResource/Preview/56752), based on the undefined notions of point, line, distance along a line, and distance around a circular arc. (G-CO.1.1)
* Perform transformations ([translations](http://www.cpalms.org/Public/PreviewResource/Preview/59176), [reflections](http://www.cpalms.org/Public/PreviewResource/Preview/59162), and [rotations](http://www.cpalms.org/Public/PreviewResource/Preview/59161)) in the plane using various tools. (G-CO.1.2)
* Describe the rotations and reflections that carry a [rectangle](http://www.cpalms.org/Public/PreviewResource/Preview/59699) or [regular polygon](http://www.cpalms.org/Public/PreviewResource/Preview/56787) onto itself. (G-CO.1.3)
* Given a geometric figure and a [rotation](http://www.cpalms.org/Public/PreviewResource/Preview/70583), [reflection](http://www.cpalms.org/Public/PreviewResource/Preview/70551), or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. (G-CO.1.5)
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| **1.5** | Partial knowledge of the score 2.0 content, but major errors or omissions regarding score 3.0 content. |
| **1.0** | With partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |
| **0.5** | With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |
| **0.0** | Even with help, no understanding or skill is demonstrated |