Content Area: Math   Grade Level: HS Geometry

Reporting Measure: Line and Angle Constructions

Level	Description
Above & Beyond (4.0)	The student will: • Develop a strategy to construct 90°, 60°, 45°, and 30° angles (for example, construct a 90° angle by constructing the perpendicular bisector of a line segment, construct a 45° angle by bisecting the 90° angle, construct a 60° angle by constructing an equilateral triangle, and construct a 30° angle by constructing a 60° angle inside a 90° angle such that they share a side).
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
Proficient (3.0)	The student will: **LAC1—Explain a construction of parallel lines** (for example, explain the justification behind each step of a compass construction of parallel lines by reasoning about the angle properties of a rhombus, the angle properties of parallel lines crossed by a transversal, or the side lengths and angles of congruent triangles). **LAC2—Explain a construction of a perpendicular bisector** (for example, explain the justification behind each step of a compass construction of the perpendicular bisector of a given line segment by reasoning about the properties of isosceles triangles and congruent triangles). **LAC3—Explain a construction of an angle bisector** (for example, explain the justification behind each step of a compass construction of the angle bisector of a given angle by reasoning about the properties of congruent triangles).
2.5	No major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content
Getting There (2.0)	**LAC1**—The student will recognize or recall specific vocabulary (for example, *compass*) and perform basic processes such as: • Explain that a compass is used to mark all points an equal distance from a central point. • List the steps necessary to construct a line that passes through a specified point and that is parallel to another line using a straight edge and compass. • Explain that if the corresponding angles of two lines crossed by a transversal are congruent, the lines are parallel. • Explain the steps necessary to construct a copy of a given angle using a straight edge and compass. For example, explain that copying an angle with a compass involves constructing a triangle atop the original angle and then constructing a second triangle congruent to the first. • Explain that if all of the corresponding sides of two triangles are congruent then all of their corresponding angles are also congruent (the triangles are congruent). **LAC2**—The student will recognize or recall specific vocabulary (for example, *perpendicular bisector*) and perform basic processes such as: • List the steps necessary to construct a perpendicular bisector using a straight edge and compass. • Explain that any point on a perpendicular bisector of a line segment is equidistant from both of the line segment's endpoints.

	• Identify congruent and similar triangles. For example, explain that if all three sides of a given a triangle are congruent to all three sides of a second triangle, the triangles are congruent (SSS [Side-Side-Side] Theorem). **LAC3**—The student will recognize or recall specific vocabulary (for example, *angle bisector*) and perform basic processes such as: • Explain that an angle bisector is a line that bisects an angle into two congruent angles. • List the steps necessary to construct an angle bisector using a straight edge and compass. • Construct congruent triangles using a compass and straight edge. • List the properties of congruent triangles (congruent corresponding sides, congruent corresponding angles).
1.5	Partial success at score 2.0 content, and major errors or omissions regarding score 3.0 content
Beginning (1.0)	With help, partial success at score 2.0 content and score 3.0 content