Content Area: Math   Grade Level: HS Geometry

Reporting Measure: Parallel and Perpendicular Lines

Level	Description
Above & Beyond (4.0)	The student will: • Use the slope criteria for parallel and perpendicular lines to solve geometric problems (for example, when given the coordinates of the vertices of a quadrilateral, determine whether its sides are parallel or perpendicular).
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
Proficient (3.0)	The student will: **PPL1—Prove that the slopes of parallel lines are equal** (for example, when given two parallel lines, use similar triangles to show that the slopes of the lines are equal). **PPL2—Prove that the slopes of perpendicular lines are negative reciprocals of each other** (for example, when given two perpendicular lines, use similar triangles to show that the slopes of the lines are negative reciprocals of each other). **PPL3—Prove that a perpendicular bisector of a line segment includes all the points that are equidistant from the endpoints of the line segment** (for example, use the Pythagorean Theorem to show that any point on a given perpendicular bisector of a line segment is equidistant from the endpoints of the line segment).
2.5	No major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content
Getting There (2.0)	**PPL1—**The student will recognize or recall specific vocabulary (for example, *parallel*, *plane*) and perform basic processes such as: • Explain that similar triangles have congruent corresponding angles and congruent corresponding side length ratios. • Identify the similar right triangles formed when parallel lines cross both the *x*- and *y*-axes. • Explain that parallel lines crossed by a transversal have congruent corresponding angles. **PPL2—**The student will recognize or recall specific vocabulary (for example, *perpendicular*, *reciprocal*) and perform basic processes such as: • Explain that opposite angles of intersecting lines are congruent. • State that supplementary angles are angles that combine to form a straight line and whose sum is 180°. • Explain that the sum of all angles in a triangle is 180°. **PPL3—**The student will recognize or recall specific vocabulary (for example, *endpoint*) and perform basic processes such as: • Explain that the bisector of a line segment divides that line segment into two equal lengths. • Identify the right triangles formed by a line segment, its perpendicular bisector, and the lines connecting a point on the bisector to either endpoint of the line segment. • Explain that the Pythagorean Theorem states that the square of the hypotenuse of a right triangle is equal to the sum of the squares of its legs.
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 |