MAFS.912.G-GPE.2.5	Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).
Item Types	Equation Editor – May require constructing an equation. Multiple Choice – May require selecting from choices. Open Response – May require explaining the slope criteria.
Clarifications	Students will prove the slope criteria for parallel lines. Students will prove the slope criteria for perpendicular lines. Students will find equations of lines using the slope criteria for parallel and perpendicular lines.
Assessment Limits	Lines may include horizontal and vertical lines. Items may not ask the student to provide only the slope of a parallel or perpendicular line.
Stimulus Attribute	Items may be set in a real-world or mathematical context.
Response Attribute	Items may require the student to be familiar with slope-intercept form of a line, standard form of a line, and point-slope form of a line.
Calculator	Neutral

Sample Item	Item Type
The equation for line *A* is shown. $y = -\frac{2}{3}x - 4$ Line *A* and line *B* are perpendicular, and the point $(-2,1)$ lies on line *B*. Write an equation for line *B*.	Equation Editor