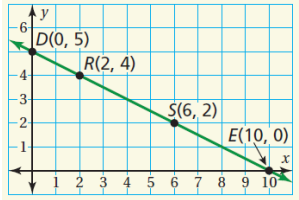
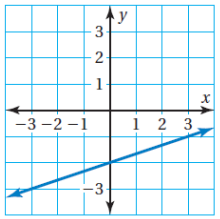
Content: Math	**Grade Level: 8th**

Standard: 8.EE.6

Use similar triangles to explain why the slope *m* is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation *y* = *mx* for a line through the origin and the equation *y* = *mx* + *b* for a line intercepting the vertical axis at *b*.

I can:

- use right triangles to show why the slope, *m*, is the same between any two distinct points on a non-vertical line in the coordinate plane.
- justify these right triangles are similar by comparing the ratios of the lengths of the corresponding sides.
- write an equation for a line in slope-intercept form (y = mx + b).

			Sample Activities
Score 4.0	**In addition to achieving level 3.0 content, the student makes in-depth inferences and applications that go beyond what was taught.**		• Write an equation for the line that passes through the point (4, 6) and is parallel to the line with the equation y = 2x + 1.
	3.5	In addition to achieving level 3.0 content, the student has partial success with level 4.0 content.	
Score 3.0	**The student can:** • write an equation in slope-intercept for a given line. • identify that the slope of a line is the same between any two points on the line because of similar triangles. **The student exhibits no major errors or omissions.**		• Draw two triangles that show the rise and run of the line using points D & E and R & S. Are the two triangles similar? How do you know?  Write an equation for the line in slope-intercept form. • Write an equation for the line in slope-intercept form. 
	2.5	No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content.	
Score 2.0	**There are no major errors or omissions regarding the simpler details and processes as the student:** • identifies the slope and y-intercept of an equation given in slope-intercept form. **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**		• Find the slope and y-intercept of the equation $y = 2x + 3$ • Write an equation of a line in slope-intercept form if the slope is 4 and the y-intercept is 7.
	1.5	Partial knowledge of the 2.0 content, but major errors or omissions regarding the 3.0 content.	
Score 1.0	**With help, a 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 the 2.0 content, but not the 3.0 content.	
Score 0.0	**Even with help, no understanding or skill demonstrated.**		