

NWEA Assessment Item Illustrating 8.EE.B

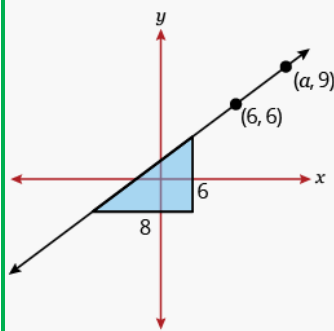
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Domain: Expressions and Equations

8.EE.B: Understand the connections between proportional relationships, lines, and linear equations.

Calculator Availability: No

This question has two parts. Use the graph to answer Part A and Part B.



Part A

What is the slope of the line? Enter the answer in the box.

Part B

What is the value of a ? Enter the answer in the box.

Alignment: 8.EE.B: Understand the connections between proportional relationships, lines, and linear equations.

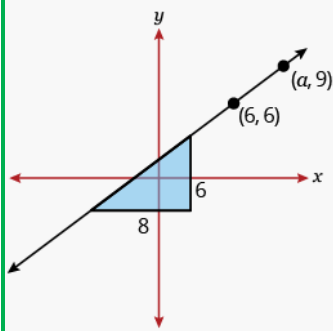
The cluster for this group of standards asks students to understand the connections between proportional relationships, lines, and linear equations. The questions in this item stop short of asking students to give the equation of the line. However, the standards do seek evidence of the conceptual building blocks that contribute to students' understanding of the connections indicated in the cluster language, specifically the connections that pertain to slope.

Coherence: In grade 6 and grade 7, students developed an understanding of proportional relationships. Students in grade 7 identified the constant of proportionality in graphs.^{7.RP.A.2b} In grade 8, students interpret the unit rate as the slope of the graph of the proportional and linear relationships. Because this item shows a triangle with the hypotenuse on the given line, students can relate the given information to their work with the Pythagorean Theorem in the Geometry domain.^{8.G.B} These connections will support grade-level work^{8.F.B} and future work in understanding the relationship between points in the coordinate plane and the set of solutions to equations in two variables.^{HSA-REI.D.10}

Rigor: This item attends to conceptual understanding. Students must use their knowledge of linear relationships to make connections between grade-level concepts in order to answer the questions.

Answer Key:

This question has two parts. Use the graph to answer Part A and Part B.



Part A

What is the slope of the line? Enter the answer in the box.

0.75

Part B

What is the value of a ? Enter the answer in the box.

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