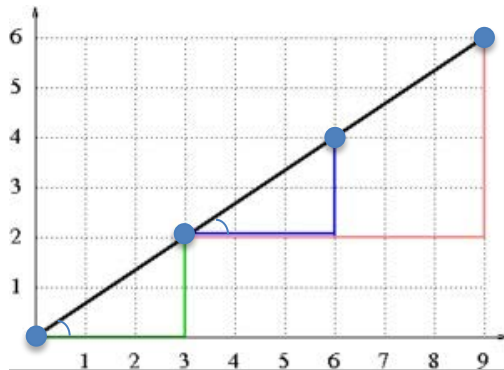# Workout

Slippery Slope

Maria, Sam, and Diego are computing the slope between pairs of points on the line in this drawing.

- Maria finds the slope between the points (0, 0) and (3, 2).
- Sam finds the slope between the points (3, 2) and (9, 6).
- Diego finds the slope between the points (3, 2) and (6, 4).

They have each drawn a triangle to help with their calculations.

1. Which student has drawn which triangle? Write the student's name inside their triangle.

2. Finish the slope calculation for **each** student. Please show your work.

3. Are the slope triangles that each student drew similar to each other? How do you know?

4. If all three triangles are similar to each other, what must be true about the angles on the left side of each triangle (i.e., the angles marked with a " ⌐"? Why?

5. The slope triangle that includes the points (3,2) and (9,6) is much larger than the other two triangles. Explain why the slope, calculated using this triangle, must be the same as the slope calculated using the other two triangles?

6. If you drew a slope triangle between *any* two points on the line and used that slope triangle to calculate the slope, how would that slope compare to the slopes you calculated above? Why?

Compare your answers with a partner. Discuss where you agree or disagree.

1. In a few words, explain what part(s) were difficult for you?

Circle the thumb that best describes how you are feeling:

?	I have lots of questions, I need help.		Almost got it, but need practice.		Got it. I can explain this to a classmate.	