Can We Both Be Right?

Find an equation for the line passing through the two points (6, 9) and (12, 13).

Alexis says, “I know, the first thing we can do is to find the slope.” Shonda agrees. They calculate the slope and come up with the same answer.

1. What is the slope of the line?

Shonda says, “Now that we have the slope, we can use the point-slope form of the equation.”
Alexis agrees, but asks, “Which point should we use?”
“I’m not sure,” replies Shonda. “Does it really matter?”
“Let’s each try it with a different point and see if we get the same answer,” Alexis suggests.

2. Alexis uses the point (6, 9) to write an equation in point-slope form. What equation does Alexis write?

3. Shonda uses the point (12, 13) to write an equation in point-slope form. What equation does Shonda write?

“These two equations sure look different,” Shonda comments. “I wonder if one of us made a mistake.”

4. Show that your two equations are indeed the same by rearranging both into slope-intercept form.