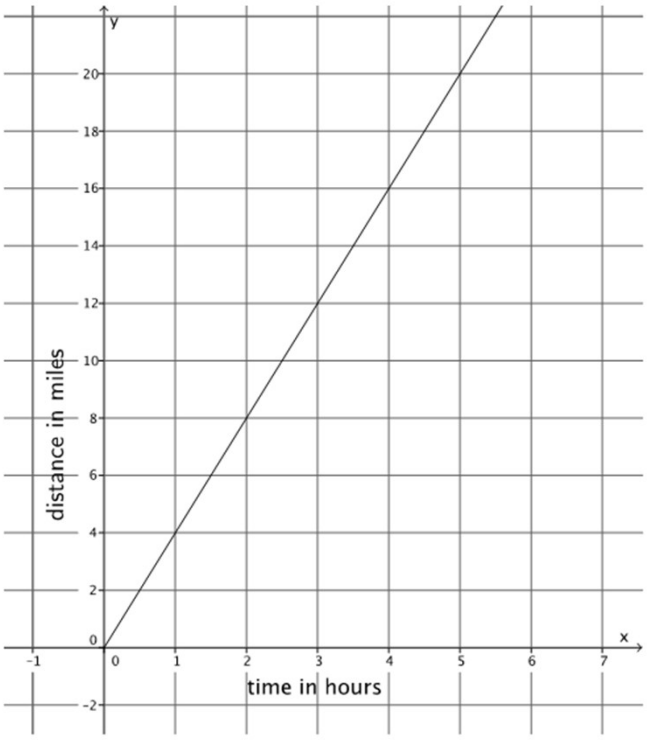
Constant Rate and Linear Equation

1. The figure below represents Nathan's constant rate of walking.



a) Nicole just finished a 5-mile walkathon. It took her 1.4 hours. Assume she walks at a constant rate. Let y represent the distance Nicole walks in x hours. Describe Nicole's walking at a constant rate as a linear equation in two variables.

c) Who walks at a greater speed? Explain.

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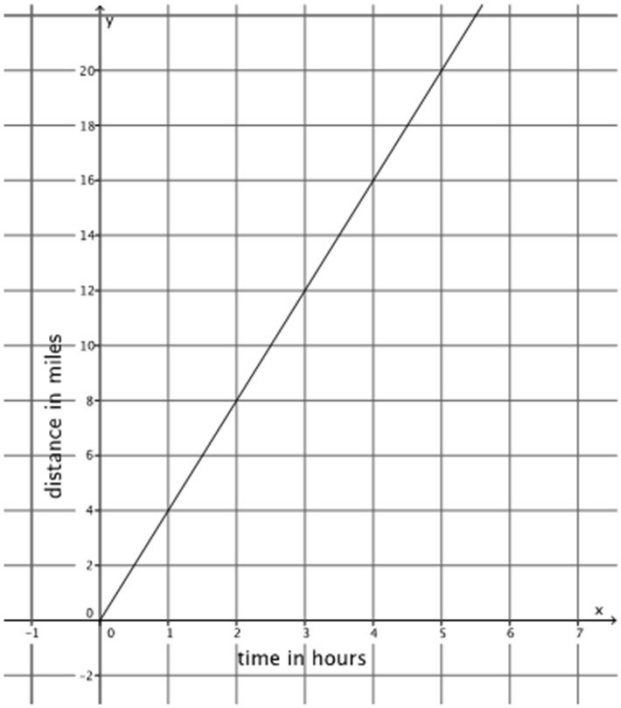

a) Nicole just finished a 5-mile walkathon. It took her 1.4 hours. Assume she walks at a constant rate. Let y represent the distance Nicole walks in x hours. Describe Nicole's walking at a constant rate as a linear equation in two variables.

$$\frac{y}{x} = \frac{5}{1.4} \quad y = \frac{25}{7}x$$

c) Who walks at a greater speed? Explain.

Nathan walks at a greater speed. The slope of the graph for Nathan is 4, and the slope or rate for Nicole is $\frac{25}{7}$. When you compare the slopes, you see that $4 > \frac{25}{7}$.