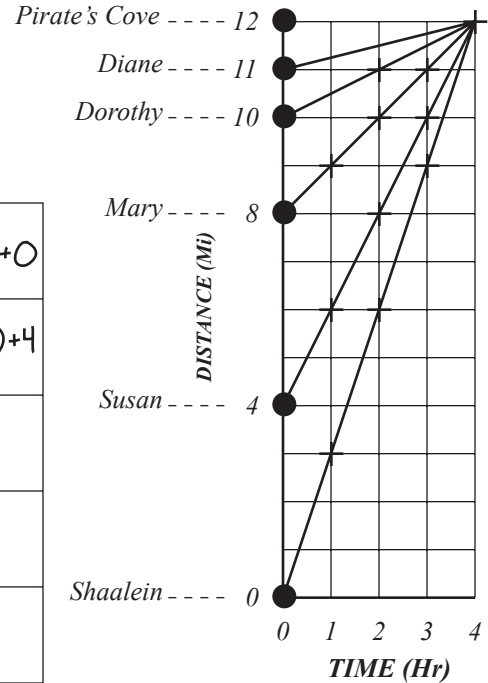


MathFLIX CHALLENGE

Application of Slope and y-intercept - Advanced

All of the COUNTDOWN teachers decided to ride their bikes to Pirate's Cove for a picnic. As you can see from the graph, each teacher had a different distance to travel and each teacher traveled at a different speed. They all arrived at Pirate's Cove (4,12) - 4 hours after they started, 12 miles from Shaalein's house. Use the graph to complete the table.

<i>Distance Traveled</i>	<i>Time Taken to Travel</i>	<i>Rate</i> <i>(Distance/Time)</i>	<i>Distance from Shaalein's</i> <i>(y-intercept)</i>	<i>Equation</i>	<i>Solution (x,y) = (4,12)</i>
Shaalein	12	4	$\frac{12}{4} = \frac{3}{1}$	0	$y = 3x + 0$ $12 = 3(4) + 0$
Susan	8	4		4	$y = 2x + 4$ $12 = 2(4) + 4$
Mary					
Dorothy					
Diane					



After lunch, the teachers rushed home at quicker rates than before. Use the following information to graph their return trip. Use a different color for each teacher. Complete the table.

Teacher	Speed	Equation	# of Hours to Get Home
Shaalein	4 mi/1 hr	$y = 4x + 0$	3
Diane	4 mi/3 hr	$y = \frac{4}{3}x + 0$	
Dorothy	2 mi/3 hr		
Mary	1 mi/3 hr		
Susan	1 mi/1 hr		

