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Unit 5, Lesson 7

Practice Problems

1. The equation and the tables represent two different functions. Use the equation $b = 4a - 5$ and the table to answer the questions. This table represents c as a function of a.

a	-3	0	2	5	10	12
c	-20	7	3	21	19	45

   a. When a is -3, is b or c greater?

   b. When c is 21, what is the value of a? What is the value of b that goes with this value of a?

   c. When a is 6, is b or c greater?

   d. For what values of a do we know that c is greater than b?

2. Match each function rule with the value that could *not* be a possible input for that function.

   A. 3 divided by the input

   B. Add 4 to the input, then divide this value into 3

   C. Subtract 3 from the input, then divide this value into 1

   1. 3
   2. 4
   3. -4
   4. 0
   5. 1

3. Elena and Lin are training for a race. Elena runs her mile a constant speed of 7.5 miles per hour.

   Lin's times are recorded every minute:

time (minutes)	1	2	3	4	5	6	7	8	9

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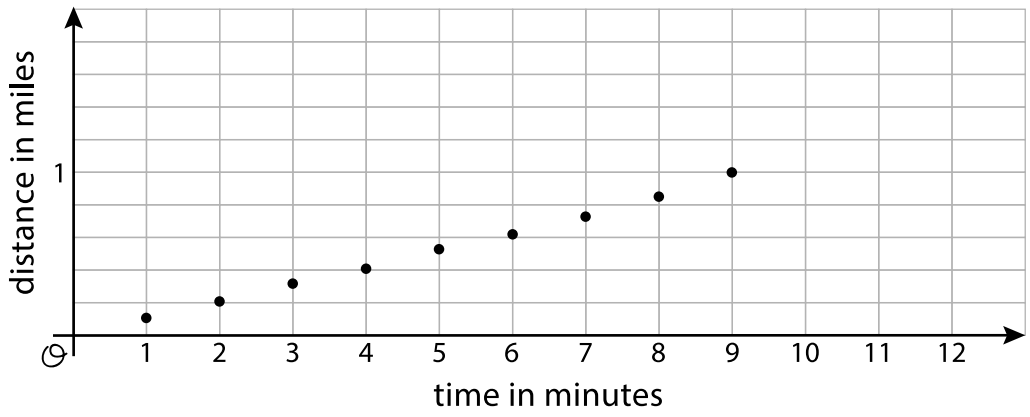
distance (miles)	0.11	0.21	0.32	0.41	0.53	0.62	0.73	0.85	1

a. Who finished their mile first?

b. This is a graph of Lin's progress. Draw a graph to represent Elena's mile on the same axes.



c. For these models, is distance a function of time? Is time a function of distance? Explain how you know.

4. Find a value of x that makes the equation true:

$$-(-2x + 1) = 9 - 14x$$

Explain your reasoning, and check that your answer is correct.