### Lesson 7 Practice Problems

1. The equation and the tables represent two different functions. Use the equation and the table to answer the questions. This table represents as a function of .

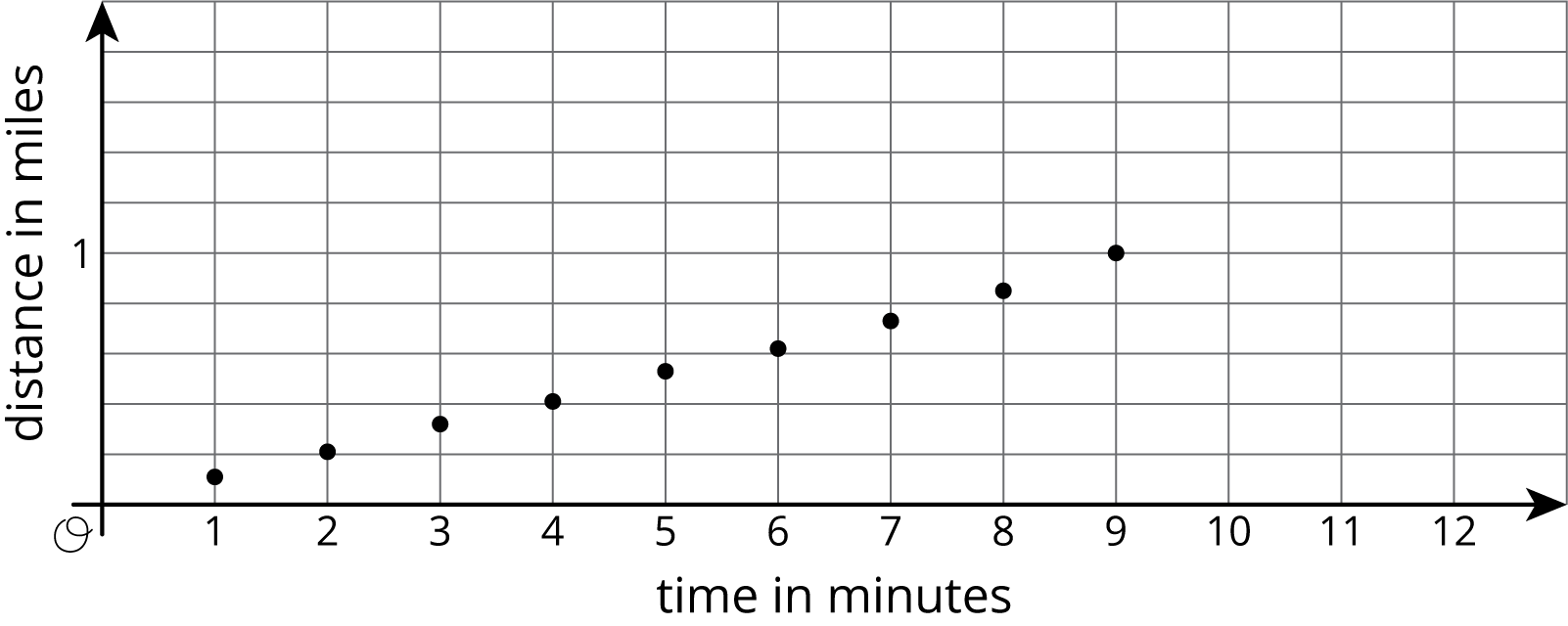
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | * -3 | * 0 | * 2 | * 5 | * 10 | * 12 |
|  | * -20 | * 7 | * 3 | * 21 | * 19 | * 45 |

* 1. When is -3, is or greater?
  2. When is 21, what is the value of ? What is the value of that goes with this value of ?
  3. When is 6, is or greater?
  4. For what values of do we know that is greater than ?

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

* Lin’s total distances are recorded every minute:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| * time (minutes) | * 1 | * 2 | * 3 | * 4 | * 5 | * 6 | * 7 | * 8 | * 9 |
| * distance (miles) | * 0.11 | * 0.21 | * 0.32 | * 0.41 | * 0.53 | * 0.62 | * 0.73 | * 0.85 | * 1 |

* 1. Who finished their mile first?
  2. This is a graph of Lin’s progress. Draw a graph to represent Elena’s mile on the same axes.
  + 
  1. For these models, is distance a function of time? Is time a function of distance? Explain how you know.

1. Match each function rule with the value that could not be a possible input for that function.
   1. 3 divided by the input
   2. Add 4 to the input, then divide this value into 3
   3. Subtract 3 from the input, then divide this value into 1
   4. 3
   5. 4
   6. -4
   7. 0
   8. 1

* (From Unit 5, Lesson 2.)

1. Find a value of that makes the equation true. Explain your reasoning, and check that your answer is correct.

* (From Unit 4, Lesson 4.)



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