

Lesson 7 Practice Problems

1 A lemonade recipe calls for $\frac{1}{4}$ cup of lemon juice for every 1 cup of water.

a. Use the table to answer these questions.

i. What does x represent?

ii. What does y represent?

iii. Is there a proportional relationship between x and y ?

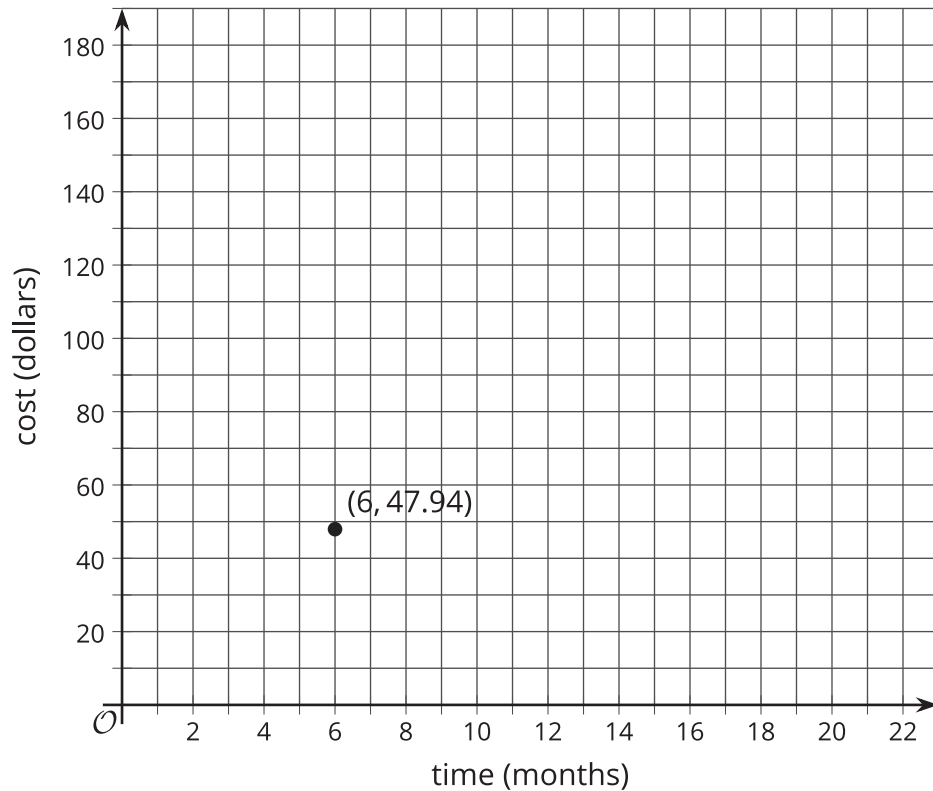
x	y
1	$\frac{1}{4}$
2	$\frac{1}{2}$
3	$\frac{3}{4}$
4	1

b. Plot the pairs in the table in a coordinate plane.



2

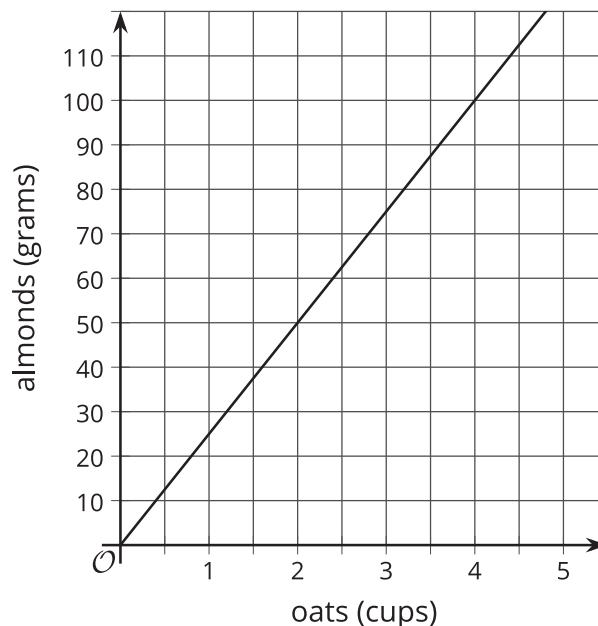
There is a proportional relationship between the number of months a person has had a streaming movie subscription and the total amount of money they have paid for the subscription. The cost for 6 months is \$47.94. The point $(6, 47.94)$ is shown on this graph:



- What is the constant of proportionality in this relationship?
- What does the constant of proportionality tell us about the situation?
- Add at least three more points to the graph and label them with their coordinates.
- Write an equation that represents the relationship between C , the total cost of the subscription, and m , the number of months.



- 3 The graph shows the amounts of almonds, in grams, for different amounts of oats, in cups, in a granola mix. Label the point $(1, k)$ on the graph, find the value of k , and explain its meaning.



- 4 from Unit 5, Lesson 6

Select **all** the pieces of information that would tell you x and y have a proportional relationship. Let y represent the distance in meters between a rock and a turtle's current position and x represent the time in minutes the turtle has been moving.

- A. $y = 3x$
- B. After 4 minutes, the turtle has walked 12 feet away from the rock.
- C. The turtle walks for a bit, then stops for a minute before walking again.
- D. The turtle walks away from the rock at a constant rate.
- E. The turtle starts out walking slowly and speeds up as it gets farther away from the rock.

- 5 from Unit 5, Lesson 6

What information do you need to know to write an equation relating two quantities that have a proportional relationship?

