

Name: _____



PRACTICE



TUTORIAL

3-4 Additional Practice

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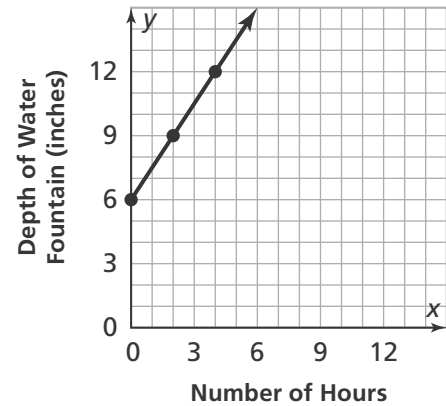


In 1–4, answer the questions related to the following situation.

The graph models the depth of the water in a small fountain during a rainstorm.

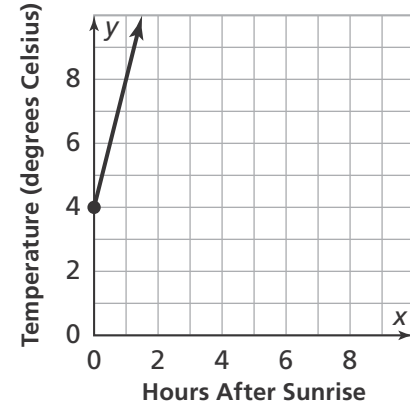
1. What is the y -intercept?
2. What does the y -intercept represent?
3. What does the slope represent?
4. Write a linear function in the form $y = mx + b$ for this line.

**The Depth of Water
in a Fountain**

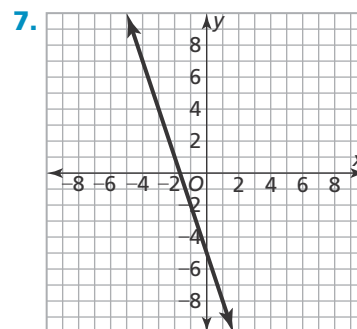
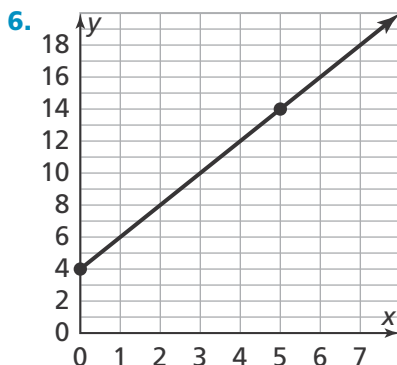


5. The graph shows the outdoor temperature on a certain winter day starting at sunrise.
 - a. What do the slope and y -intercept of this function represent?
 - b. Write a linear function in the form $y = mx + b$ for this line.

Temperature Since Sunrise



For 6–7, write the equation that models each linear relationship.

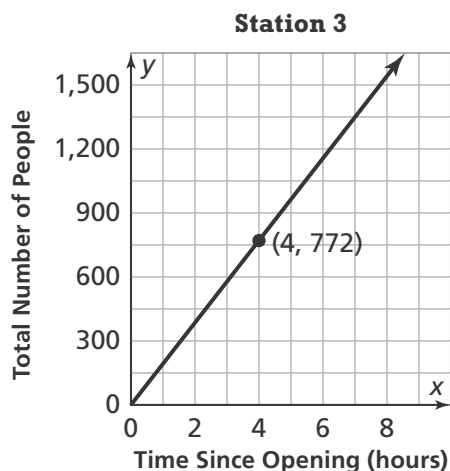


8. Carla is saving money for a trip this summer. She already has some money in her savings account and will add the same amount to her account each week. At the end of 2 weeks, Carla has \$130. At the end of 8 weeks, she has \$280. Write a linear function in the form $y = mx + b$ to represent the amount of money, m , that Carla has saved after w weeks.

9. **Higher Order Thinking** Stations 1, 2, and 3 are bus stations. The equation $y = 160x$ represents the number of people that go to Station 1, where y is the total number of people and x is the number of hours since opening. The table shows the same relationship for Station 2, and the graph shows the relationship for Station 3.

Station 2

Hours Since Opening, x	2	3	4	5
Total Number of People, y	326	489	652	815



- a. Which station has the greatest number of people arrive per hour?
- b. What is the total number of people who have gone to a bus station after 4 hours?

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10. A family went to a baseball game. The cost to park the car was \$5 and the cost per ticket was \$21. Write a linear function in the form $y = mx + b$ for the total cost of going to the baseball game, y , and the total number of people in the family, x .

11. José weighed himself on Monday, and he weighed 170 pounds. Two weeks later, he weighed 165 pounds.

- a. Write a linear function in the form $y = mx + b$ to model José's weight loss each week, where x is the number of weeks and y is José's weight. Assume a constant weight loss over the two weeks.
- b. If José continues to lose weight at the same rate, how much will he weigh after 5 weeks?

