

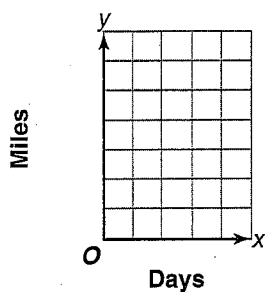
Practice 11-5

Graphing Linear Functions

Complete the table and determine whether the data are *discrete* or *continuous*. Then graph the function. Show only the portion that makes sense for each situation.

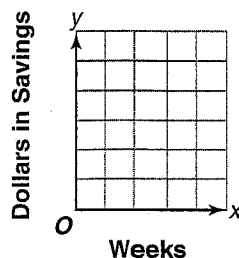
1. On a trip Alex averages 300 mi/day. The distance he covers (y) is a function of the number of days (x).

Days				
Miles				



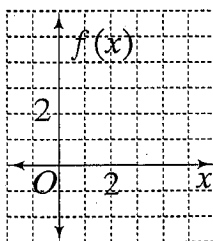
2. You have \$10.00 in a savings account. Each Friday you deposit \$2.50 more. The number of weeks you save (x) increases your savings (y).

Weeks				
Savings				

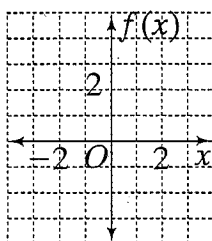


Graph each linear function.

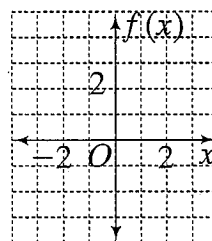
3. $f(x) = -x + 4$



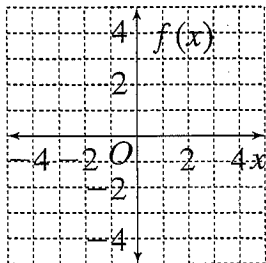
4. $f(x) = \frac{2}{3}x + 1$



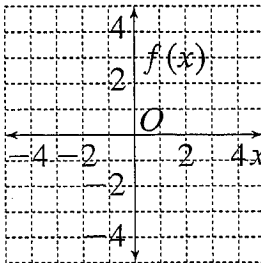
5. $f(x) = -2x + 1$



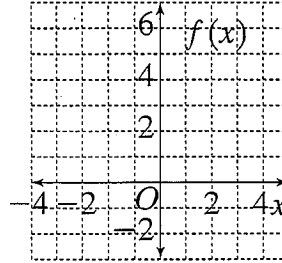
6. $y = -\frac{1}{2}x + 3$



7. $y = -2 - 3x$



8. $y = 5 - 0.2x$



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11-5 • Guided Problem Solving

GPS Student Page 537, Exercise 17.

Science The height of a burning candle depends on how long the candle has been burning. For one type of candle, the function $h = 8 - \frac{1}{2}t$ gives the candle's height h (in centimeters) as a function of the time t the candle has burned (in hours).

- Graph the function.
- What was the original height of the candle?
- What is the greatest amount of time the candle can burn?

Understand

- What do the variables h and t represent?

Plan and Carry Out

- Graph the function on a separate sheet of paper.
- What does the x -axis represent?
- What does the y -axis represent?

- What was the original height of the candle? How can you tell?

- How long can the candle burn? How can you tell?

Check

- How can you check your answer?

Solve Another Problem

- The initial payment on a car lease is \$3,000. Each monthly payment is \$300. This can be represented by the function $c = 3,000 + 300m$, where c is the cost of the lease after m months. Graph the function on a separate sheet of paper. How many months will it be until the cost of the lease is \$4,800?

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