NAME _____ DATE _____ PERIOD _____

8-1 Practice

Functions

Determine whether each relation is a function. Explain.

1. {(4, −5), (0, −9), (1, 0), (7, 0)}

2. {(5, 2), (−2, 15), (−7, 15), (1, 5), (4, 15), (−7, 2)}

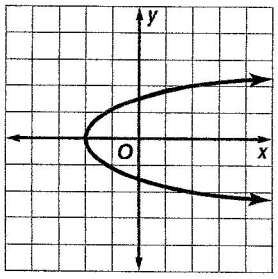
3.

x	−3.0	3.5	4.1	−3.0	3.4
y	4.2	3.7	−3.8	3.7	4.0

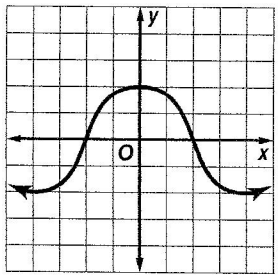
4.

x	7	14	11	−10	−1
y	−3	−9	−4	−3	15

5.



6.



If $f(x) = \frac{1}{2}x + 5$, find each function value.

Ex. $f(2) = \frac{1}{2}(2) + 5$
$= 1 + 5$
$= 6$

7. $f(24)$ **8.** $f(-30)$ **9.** $f(11)$ **10.** $f(-10)$

EMPLOYMENT For Exercises 11–14, use the table, which shows the percent of employed men and women in the U.S. labor force every five years from 1985 to 2005.

Employed Members of Labor Force		
Year	Men (% of male population)	Women (% of female population)
1985	76.3	54.5
1990	76.4	57.5
1995	75.0	58.9
2000	78.9	67.3
2005	73.3	59.3

Source: U.S. Census Bureau

11. Is the relation (year, percent of men) a function? Explain.

12. Describe how the percent of employed men is related to the year.

13. Is the relation (year, percent of women) a function? Explain.

14. Describe how the percent of employed women is related to the year.

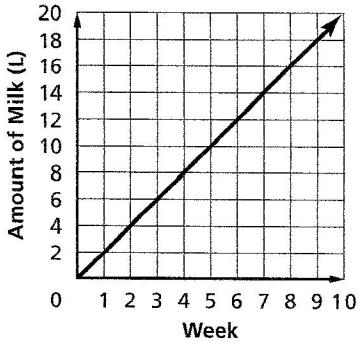
NAME _____ DATE _____ PERIOD _____

8-4 Skills Practice

Rate of Change

Find the rate of change for each linear function.

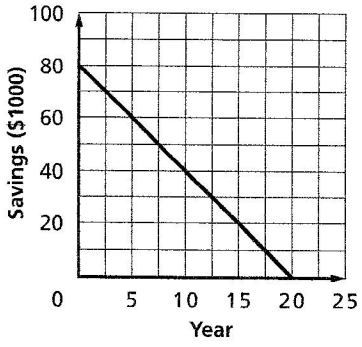
1.



2.

Year	Salary ($)
x	*y*
1	21,000
2	23,500
3	26,000
4	28,500

3.



4.

Month	Number of Employees
x	*y*
0	0
2	22
4	44
6	66

5.

Time (min)	Temperature (°C)
x	*y*
0	9
1	23
2	37
3	51
4	65

6.