

Exercises 2-6

Complete each function table.

1.

x	$10x$
1	10
2	20
4	?
6	?
8	?

2.

x	$\frac{x}{6}$
6	1
12	2
18	?
24	?
30	?

3.

x	$2x + 9$
2	13
4	17
6	?
8	?
10	?

Use each function table to find the function rule.

4.

x	?
5	8
6	9
7	10
8	11
9	12

5.

x	?
1	5
2	10
3	15
4	20
5	25

6.

x	?
8	1
10	3
12	5
14	7
16	9



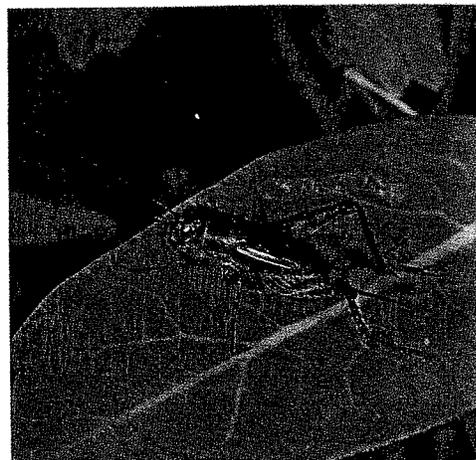
7. A person's weekly pay often depends on the number of hours the person works that week. Daniel earns \$8.25 per hour. Use the function rule $t \rightarrow 8.25t$ to complete the function table at the right. Find Daniel's weekly pay for weeks that he works 7, 9, 12, 13, and 16 hours.

t	$8.25t$
7	?
9	?
12	?
13	?
16	?

8. Suppose Daniel has received a raise and now earns \$9.75 per hour. Make a function table to find his weekly pay for weeks that he works 5, 8, 12, 15, and 20 hours.

CONNECTING MATHEMATICS AND SCIENCE

The number of times a cricket chirps per minute is thought to be a function of the air temperature. If c is the air temperature in degrees Celsius ($^{\circ}\text{C}$), then the function rule for the number of chirps per minute is $c \rightarrow 7c - 30$.



9. The air temperature is 20°C . How many times per minute does a cricket chirp?
10. The air temperature is 5°C . How many times does a cricket chirp in 1 h?
11. How many more times per minute does a cricket chirp at 28°C than at 25°C ?
12. Make a function table for a cricket's chirps per minute when the air temperature is 8°C , 10°C , 12°C , 14°C , 16°C , and 18°C .

PROBLEM SOLVING/APPLICATION

The Center Town Library charges \$.15 for each day a book is overdue.

13. What does it mean for a library book to be *overdue*?
14. Write the function rule that describes the relationship between the number of days a book is overdue and the amount charged by the library. Represent the number of days by d and write the function rule using arrow notation.
15. Use the function rule from Exercise 14 to find the charge for a book that is three days overdue.
16. A book that was due on Monday is returned on Friday. Use the function rule from Exercise 14 to find the overdue charge.
17. **RESEARCH** Find out the amount that your school library or public library charges for overdue books. If possible, write a function rule to represent the overdue charge.

SPIRAL REVIEW

18. Complete the function table at the right.
(Lesson 2-6)
19. Find the quotient: $146.94 \div 6.2$
(Toolbox Skill 14)
20. Find the answer: 13^2 (Lesson 1-9)
21. Simplify: $8x - 3x + 5y$ (Lesson 2-3)

x	$6x - 5$
1	1
3	13
5	?
7	?
9	?