

Independent Practice



Find each function value. (Example 1)

1. $f(7)$ if $f(x) = 5x$

2. $f(9)$ if $f(x) = x + 13$

3. $f(4)$ if $f(x) = 3x - 1$

Show your work.

Choose four values for x to make a function table for each function. Then state the domain and range of the function. (Example 2)

4. $f(x) = 6x - 4$

x	$6x - 4$	$f(x)$

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

x	$5 - 2x$	$f(x)$

6. $f(x) = 7 + 3x$

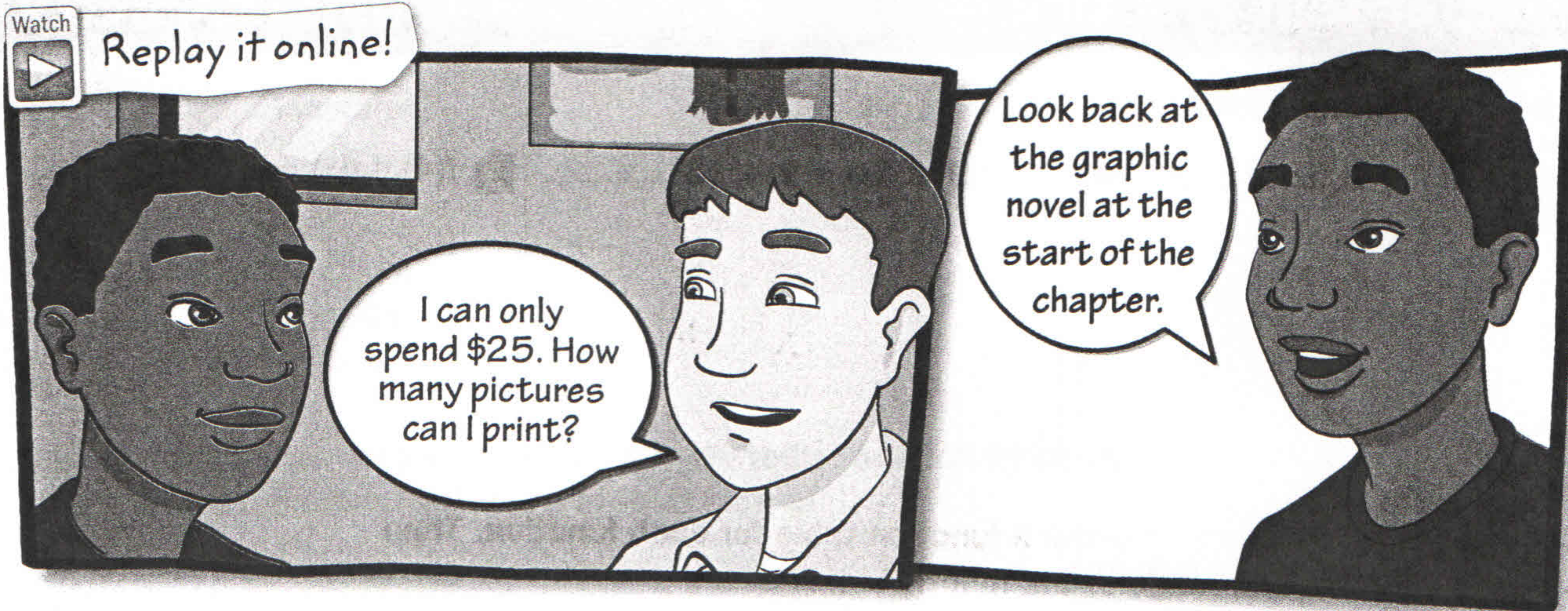
x	$7 + 3x$	$f(x)$

7. In a recent 82-game season, Dwight Howard of the Orlando Magic averaged 20.7 points per game. His approximate total points scored $p(g)$ is a function of the number of games played g . (Examples 3 - 5)

- Identify the independent and dependent variables.
- What values of the domain and range make sense for this situation? Explain.
- Write a function to represent the total points scored. Then determine the number of points scored in 9 games.

(1)

8. **CCSS Model with Mathematics** Refer to the graphic novel frame below for Exercises a–c.



- Write a function to represent the total cost c of printing and shipping any number of pictures p .
- Make a function table on a separate piece of paper to find the total cost of printing and shipping 25, 50, 75, and 100 pictures.
- On a separate piece of paper, graph the ordered pairs on a coordinate plane. Can you determine how many pictures Brian can ship for \$25?

Copy and Solve Find each function value. Show your work on a separate piece of paper.

9. $f\left(\frac{5}{6}\right)$ if $f(x) = 2x + \frac{1}{3}$

10. $f\left(\frac{5}{8}\right)$ if $f(x) = 4x - \frac{1}{4}$

H.O.T. Problems Higher Order Thinking

11. **CCSS Reason Abstractly** If $f(-3) = -8$, write a function rule and find the function values for zero, a negative, and a positive value of x .

12. **CCSS Persevere with Problems** Write the function rule for each function.

a.

x	$f(x)$
-3	-30
-1	-10
2	20
6	60

b.

x	$f(x)$
-5	-9
-1	-5
3	-1
7	3

c.

x	y
-2	-3
1	3
3	7
5	11

d.

x	y
-2	-5
1	1
3	5
5	9

Standardized Test Practice

13. Malinda is buying CDs that cost \$12.99 each. There is a shipping charge of \$4.95. Which function represents the total cost $c(m)$ of m CDs?

- (A) $c(m) = m(12.99 + 4.95)$ (C) $c(m) = 12.99m + 4.95$
 (B) $c(m) = 4.95m + 12.99$ (D) $c(m) = (12.99 - 4.95)m$

(2)

Extra Practice

Find each function value.

Homework Help

14. $f(-12)$ if $f(x) = 2x + 15$

$$f(x) = 2x + 15$$

$$f(-12) = 2(-12) + 15$$

$$f(-12) = -24 + 15$$

$$f(-12) = -9$$

15. $f(-7)$ if $f(x) = 8x + 15$

16. $f(9)$ if $f(x) = 5x - 16$

Choose four values for x to make a function table for each function. Then state the domain and range of the function.

17. $f(x) = x - 9$

x	$x - 9$	$f(x)$

18. $f(x) = 7x$

x	$7x$	$f(x)$

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

x	$4x + 3$	$f(x)$

20. A photographer takes an average of 15 pictures per session. The total number of pictures $p(s)$ is a function of the number of sessions s .

- Identify the independent and dependent variables.
- What values of the domain and range make sense for this situation? Explain.
- Write a function to represent the total number of pictures taken. Then determine the number of pictures taken in 22 sessions.

21. **CCSS Reason Abstractly** Leon belongs to a music club that charges a monthly fee of \$5, plus 0.50 per song that he downloads. Write a function to represent the amount of money $m(s)$ he would pay in one month to download s songs. What is the cost if he downloads 30 songs?



Standardized Test Practice

22. The Cracker Crumbs Company has been making different varieties of crackers for many years. Currently, their most popular cracker sells for \$4.80 per box. The table below shows the cost of these crackers in various years.

Year	Cost (\$)
1965	?
1975	?
1985	2.55
1995	3.30
2005	4.05
2015	4.80

Assuming the price changed at a steady rate, what was the price of the crackers in 1965?

- (A) \$0.30 (C) \$1.80
 (B) \$1.05 (D) \$2.55

23. Stephanie received a \$25 gift certificate to an online music store. If the cost of purchasing a song is \$0.95, which table best describes $n(s)$, the balance remaining after she buys s songs?

(F)

s	n(s)
1	\$24.10
2	\$23.20
4	\$21.40
6	\$19.60
8	\$17.80

(H)

s	n(s)
2	\$23.10
4	\$21.20
5	\$20.25
8	\$17.40
10	\$15.50

(G)

s	n(s)
0	\$25.00
3	\$22.00
6	\$19.00
9	\$16.00
12	\$13.00

(I)

s	n(s)
5	\$20.05
10	\$15.10
15	\$10.15
20	\$5.20
25	\$0.25



Common Core Review

24. Cheryl is training for a marathon. She runs about 85 miles per week. 6.EE.7

a. Write an equation to find the total miles m run in any number of weeks w .

b. Make a table to find the total miles run in 3, 4, 5, or 6 weeks.

Evaluate each expression if $p = 5$ and $q = 12$. 6.EE.2

25. $\frac{3p - 6}{8 - p}$ _____

26. $\frac{4q}{q + 2(p + 1)}$ _____

27. $\frac{q \cdot q}{4p - 2}$ _____