

Independent Practice

Relations and Functions

A.7abef, A.8, A.11

Read and solve.

1. Using the same relationship between x and y as the table, what is the value of y when x is 8?

- A. -1
- B. 2
- C. 3
- D. 5

x	y
0	-5
2	-3
-2	-7
4	-1
-4	-9

2. What is the domain of the set of ordered pairs:

$\{(-5, -4), (-4, 4), (2, 3), (4, 5)\}$

- A. $\{-5, -4, 2, 4\}$
- B. $\{-4, 3, 4, 5\}$
- C. $\{-5, -4, 4, 5\}$
- D. $\{-5, 2, 3, 4\}$

3. What is the range of the function $f(x) = 5 - 8x$ when the domain is $\{-2, 2, 4\}$?

- A. $\{-27, -11\}$
- B. $\{-27, -11, 21\}$
- C. $\{-2, 2, 4\}$
- D. $\{1/8, 3/8, 7/8\}$

4. If $f(x) = (2/3)x - 6$, what is $f(12)$?

- A. 2
- B. 8
- C. 14
- D. 27

5. $(0, -3), (2, -2), (4, -1), (6, 0), \dots$

The ordered pairs above follow a pattern. If $(10, y)$ is in this pattern, what is the value of y ?

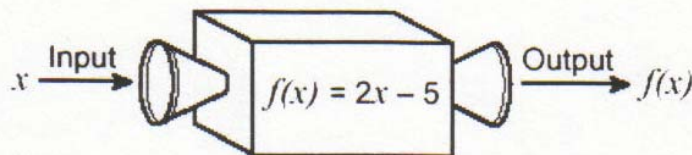
- A. 1
- B. 2
- C. 3
- D. 4

Independent Practice--continued

6. a varies directly as b and $a = 12$ when $b = 4$. What is the constant of variation?

- A. -8
- B. $\frac{1}{3}$
- C. 3
- D. 8

7.



Using the function machine in the diagram, what is the output when 12 is input?

- A 7
- B 8.5
- C 19
- D 29

8. a varies directly as b and the constant of variation is $\frac{1}{4}$. Which equation represents the relationship?

- A. $a = \frac{1}{4}b$
- B. $a = 4b$
- C. $a = b + \frac{1}{4}$
- D. $a = b - \frac{1}{4}$

9. Which of the following sets of ordered pairs is a function?

- A. $\{ (2, 1), (2, 2), (3, 4), (5, 6) \}$
- B. $\{ (-2, -1), (1, 2), (3, 4), (1, 5) \}$
- C. $\{ (1, 2), (2, 2), (3, 3), (2, 4) \}$
- D. $\{ (1, 1), (2, 1), (3, 2), (4, 4) \}$

Independent Practice—continued.

10.

Which of the following is *not* a graph of a function?

