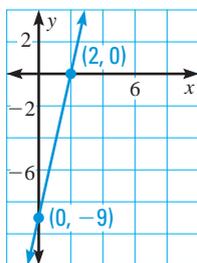


# Chapter Standardized Test

**TEST-TAKING STRATEGY** Read all of the answer choices before deciding which is the correct one.

1. **MULTIPLE CHOICE** What is the equation of the line shown?



- (A)  $9x - 2y = -18$   
 (B)  $-9x - 2y = 18$   
 (C)  $9x + 2y = 18$   
 (D)  $9x + 2y = -18$   
 (E)  $-9x + 2y = -18$

2. **MULTIPLE CHOICE** What is the y-intercept of the line  $-4x - \frac{1}{2}y = 10$ ?

- (A) -20      (B) -4  
 (C)  $-\frac{5}{2}$       (D) 5  
 (E) 20

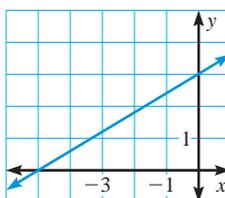
3. **MULTIPLE CHOICE** Write the equation  $3x - 4y = 20$  in slope-intercept form.

- (A)  $y = -\frac{3}{4}x - 5$   
 (B)  $y = -\frac{3}{4}x + 5$   
 (C)  $y = \frac{3}{4}x - 5$   
 (D)  $y = \frac{3}{4}x + 5$   
 (E)  $y = 20 - 3x$

4. **MULTIPLE CHOICE** Find the slope of the line passing through the points (1, 2) and (2, 1).

- (A) 1      (B) 3  
 (C) 2      (D) -1  
 (E) -2

5. **MULTIPLE CHOICE** What is the slope of the line shown?



- (A) -5      (B)  $-\frac{3}{5}$   
 (C)  $\frac{3}{5}$       (D)  $\frac{5}{3}$   
 (E) 3

6. **MULTIPLE CHOICE** What is the slope of the graph of the equation  $5x - y = -2$ ?

- (A) -5      (B) 5  
 (C) 1      (D) -2  
 (E) 2

7. **MULTIPLE CHOICE** Which point does *not* lie on the graph of  $x = -12$ ?

- (A) (-12, 0)  
 (B) (-12, -12)  
 (C) (-12, 1)  
 (D) (-1, -12)  
 (E) (-12, 12)

8. **MULTIPLE CHOICE** What is the x-intercept of  $-13x - y = -65$ ?

- (A) -65      (B) -5  
 (C) 0      (D) 5  
 (E) 65

9. **MULTIPLE CHOICE** Find the value of  $f(x) = -x^2 - 6x - 7$  when  $x = -2$ .

- (A) -23      (B) -15  
 (C) 1      (D) 7  
 (E) 9

**QUANTITATIVE COMPARISON** In Exercises 10–12, choose the statement below that is true about the given numbers.

- (A) The number in column A is greater.
- (B) The number in column B is greater.
- (C) The two numbers are equal.
- (D) The relationship cannot be determined from the given information.

	Column A	Column B
10.	The slope of the line through $(4, -3)$ and $(-12, -3)$	0
11.	The slope of the line through $(4.5, 6)$ and $(-7, 4)$	The slope of the line through $(-6, 4.5)$ and $(4, -7)$
12.	The slope of the line through $(3.5, y)$ and $(6.8, 4)$	The slope of the line through $(3.5, q)$ and $(6.8, 4)$

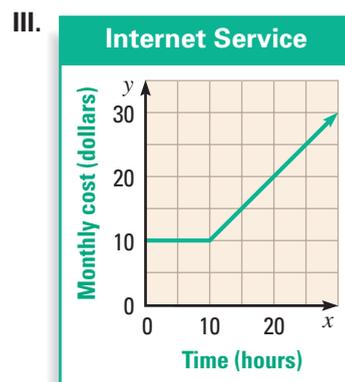
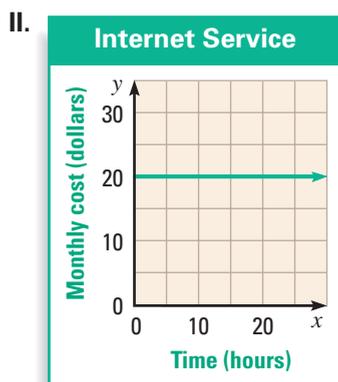
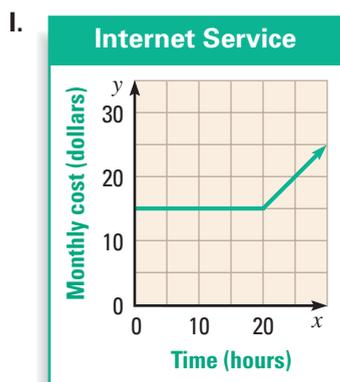
13. **MULTI-STEP PROBLEM** An Internet provider offers three different levels of monthly service.

**Standard:** \$10 for the first 10 hours and \$1 for each additional hour.

**Upgrade:** \$15 for the first 20 hours and \$1 for each additional hour.

**Unlimited:** \$20 per month with no hourly charge.

a. Tell whether each graph represents Standard, Upgrade, or Unlimited service. Explain your reasoning.



- b. Write an equation for the total cost  $T$  per month for Upgrade service as a function of the number of additional hours used  $b$ .
- c. If you use the Internet 13 hours per month, which service will cost the least? Explain.
- d. If you use the Internet 24 hours per month, which service will cost the least? Explain.
- e. The equation  $C = 10 + a$  gives the total cost  $C$  per month for Standard service as a function of the number of additional hours used  $a$ . Explain how this model is different from the one you labeled Standard in part (a).