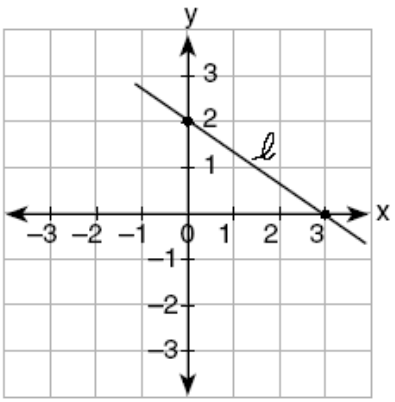
**Name** _____ **Date** _____

**Math 8** **Module 4 Review: Linear Equations**

**1)** What is the slope of line l in the accompanying diagram?




(a) $-\frac{3}{2}$ (c) $\frac{2}{3}$

(b) $-\frac{2}{3}$ (d) $\frac{3}{2}$

**2)** What is the slope of the line containing the points (3, 4) and (-6, 10)?

(a) $\frac{1}{2}$ (c) $-\frac{2}{3}$

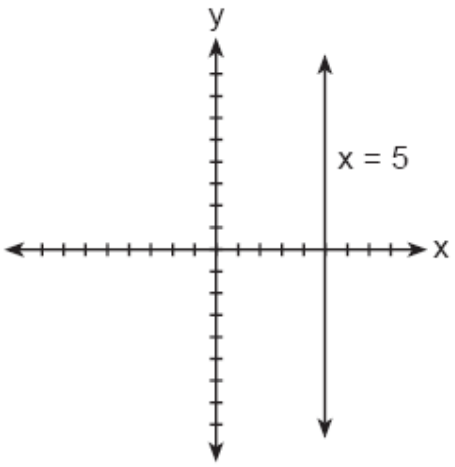
(b) 2 (d) $-\frac{3}{2}$

**3)** If the value of dependent variable ***y*** increases as the value of independent variable ***x*** increases, the graph of this relationship could be a

(a) horizontal line (c) line with a negative slope

(b) vertical line (d) line with a positive slope

**4)** The accompanying figure shows the graph of the equation $x = 5$.




What is the slope of the line $x = 5$?

(a) 5 (c) 0

(b) $-5$ (d) undefined

**5)** An equation of the line that has a slope of 3 and a $y$-intercept of $-2$ is

(a) $x = 3y - 2$ (c) $y = -x$

(b) $y = 3x - 2$ (d) $y = -2x + 3$

**6)** What is the $y$-intercept of the graph of the line whose equation is $y = -\frac{2}{5}x + 4$ ?

(a) $-\frac{5}{2}$ (c) 0

(b) $-\frac{2}{5}$ (d) 4

**7)** What is the slope of the linear equation $y = 10x - 15$?

(a) 10 (c) $-10$

(b) 15 (d) $-1$

**8)** The line $y = \frac{3}{2}x - 6$ has

(a) a slope of $\frac{3}{2}$ and a $y$-intercept of $-6$

(b) a slope of $-\frac{3}{2}$ and a $y$-intercept of 6

(c) a slope of 3 and a $y$-intercept of $-2$

(d) a slope of $-3$ and a $y$-intercept of $-6$

**9)** The y – intercept of the equation $y = -6x$ is

(a) 0 (c) 1

(b) - 6 (d) 6

**10)** What is the slope of the line that passes through the points (0, 0) and (-1, -8) ?

(a) 0 (c) No slope

(b) - 8 (d) 8

**11)** Which equation represents the values in the table?

| x | –1 | 0 | 1 | 2 | 3 |
|---|---|---|---|---|---|
| y | 5 | 7 | 9 | 11 | 13 |

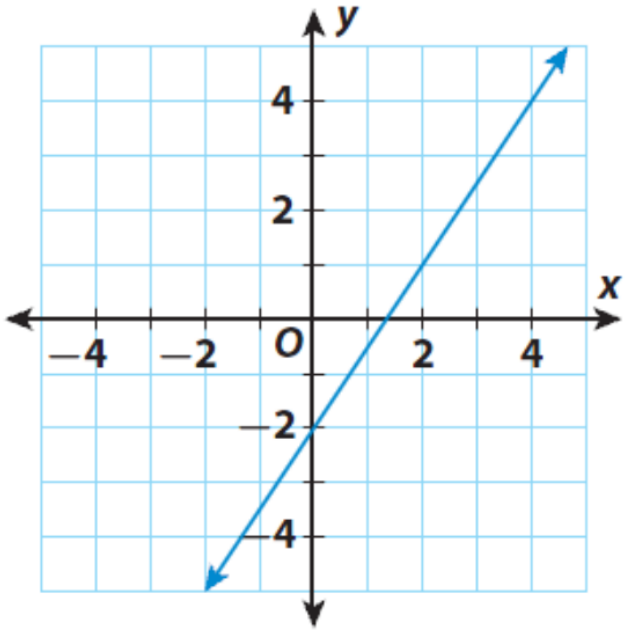
a. $y = 2x + 8$

b. $y = 2x + 7$

c. $y = 3x + 7$

d. $y = 2x - 7$

**12)** Which equation represents the equation graphed to the right?




(a) $y = \frac{3}{2}x + 2$

(b) $y = \frac{3}{2}x - 2$

(c) $y = \frac{2}{3}x - 2$

(d) $y = -\frac{2}{3}x - 2$

**13)** Which equation represents a nonproportional relationship?

Ⓐ $y = 3x + 0$

Ⓑ $y = -3x$

Ⓒ $y = 3x + 5$

Ⓓ $y = \frac{1}{3}x$

**14)** The slope and y-intercept of the equation $y = 6 - 3x$ are

(a) slope = 3; y-intercept = 6

(b) slope = -6; y-intercept = -3

(c) slope = 6; y-intercept = -3

(d) slope = -3; y-intercept = 6

**15)** Vincent's savings over several weeks are shown in the table. If a linear function models Vincent's savings over time, how much money did he initially have?

| Time (weeks) | Savings (dollars) |
|---|---|
| 2 | 75 |
| 4 | 115 |
| 6 | 155 |
| 8 | 195 |
| 10 | 235 |

(a) 0

(b) 75

(c) 20

(d) 35