

Linear Concepts Review

Multiple Choice

Identify the choice that best completes the statement or answers the question.

_____ 1. Slope is measured by....

a. $\frac{run}{rise}$

b. $\frac{rise}{run}$

_____ 2. In the equation, $y = mx + b$, which variable represents the slope?

a. y

b. m

c. x

d. b

_____ 3. In the equation, $y = mx + b$, which variable represents the y-intercept?

a. y

b. m

c. x

d. b

_____ 4. Find the slope.

$$y = 8 - 3x$$

a. 8

b. 5

c. 3

d. -3

_____ 5. Find the slope.

$$y = 4x - 10$$

a. 4

b. -10

c. -6

d. x

_____ 6. Find the slope.

x	y
-6	8
-4	14
-2	20
0	26
2	32

a. 2

b. 3

c. 6

d. 26

_____ 7. Find the slope.

x	y
6	5
9	3
12	1
15	-1
18	-3

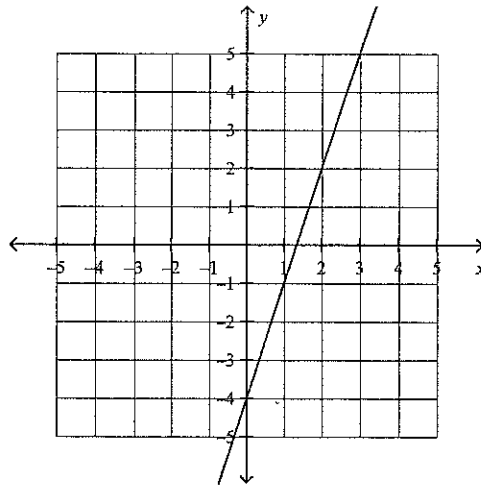
a. 2

b. 3

c. -3

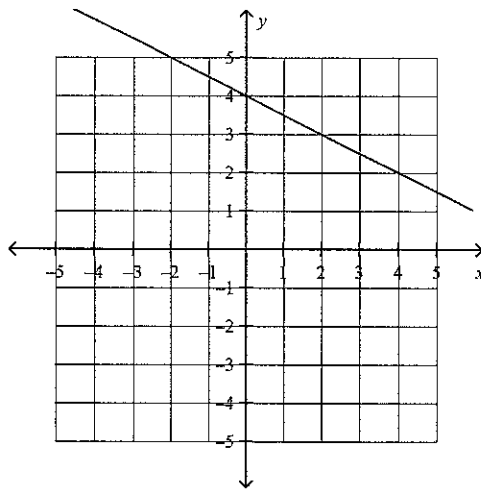
d. $-\frac{2}{3}$

8. Find the slope.



- a. -4 b. $\frac{1}{3}$ c. 1 d. 3

9. Find the slope.



- a. $-\frac{1}{2}$ b. $\frac{1}{2}$ c. 2 d. 4

10. Find the slope for the line that goes through the following points...

(2, 1) (4, 6)

- a. $\frac{5}{2}$ b. $-\frac{5}{2}$ c. $\frac{2}{5}$ d. $-\frac{2}{5}$

11. Find the slope for the line that goes through the following points...

(-2, 4) (3, 14)

- a. $-\frac{1}{2}$ b. $\frac{1}{2}$ c. -2 d. 2

_____ 12. Write an equation.

x	y
-6	8
-4	16
-2	24
0	32
2	40

a. $y = 4x + 32$

b. $y = 32x + 4$

c. $y = 8x + 32$

d. $y = 32 + 8x$

_____ 13. Write an equation.

x	y
0	7
3	1
6	-5
9	-11
12	-17

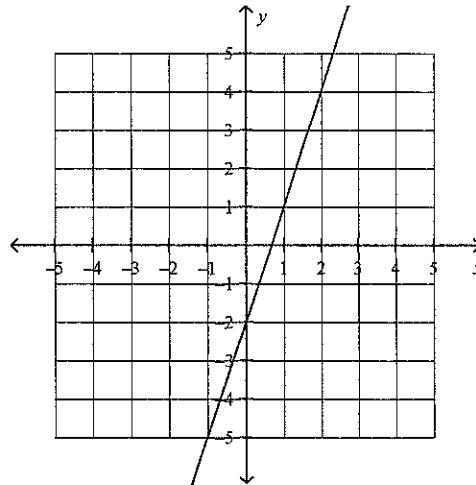
a. $y = 7x + 2$

b. $y = 2x + 7$

c. $y = -2x + 7$

d. $y = 6x + 7$

_____ 14. Write an equation.



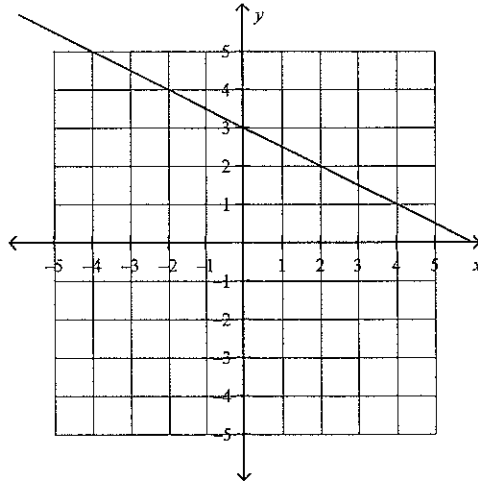
a. $y = \frac{1}{3}x - 2$

b. $y = \frac{1}{3}x + 2$

c. $y = 3x + 2$

d. $y = 3x - 2$

15. Write an equation.



- a. $y = 2x + 3$ b. $y = -2x + 3$ c. $y = -\frac{1}{2}x + 3$ d. $y = \frac{1}{2}x + 3$

16. Write an equation for the following situation.

A van drive 58 miles per hour.

- a. $y = 58$ b. $y = 58x$ c. $y = 58x + 58$

17. Write an equation for the following situation.

A student is walking in a walk-a-thon and needs to gather pledges to raise money. She asks her sponsors for a \$6 donation and an additional \$2 per mile.

- a. $y = 6x + 2$ b. $y = 2x + 6$ c. $y = 8x$

18. Write an equation for the following situation.

An arcade charges its customers 50 cents per game. However, they also charge a \$3 admission fee.

- a. $y = 0.50x + 3$ b. $y = 50x + 3$ c. $y = 3x + 0.50$ d. $y = 3x + 50$

19. Write an equation for the following situation.

Matt earns an allowance. His parents pay him \$5 a week, plus \$1 for each chore that he completes.

- a. $y = 5x + 1$ b. $y = x + 5$ c. $y = 6x$

20. Write an equation for the following situation.

Anna babysits for her neighbors. They pay her at a rate of \$6 per hour.

- a. $y = 6$ b. $y = 6x$ c. $y = 6x + 6$