

Pre-Algebra Chapter 8 Study Guide

Multiple Choice

WRITE your choice on the line that best completes the statement or answers the question.

- A 1. Which ordered pair is a solution of the equation $2x + y = -10$?
- a. $(-3, -4)$ b. $(-5, -3)$ c. $(-4, -3)$ d. $(-3, -5)$

Short Answer

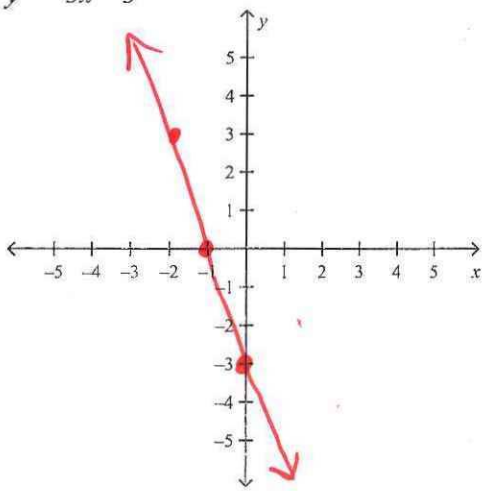
2. Find the solution of $y = -x - 5$ for $x = -6$.

$y = 6 - 5$ $y = 1$

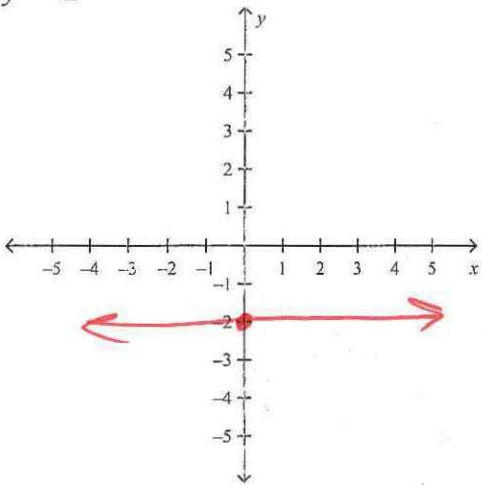
$(-6, 1)$

Graph the linear equation.

3. $y = -3x - 3$



4. $y = -2$



Is the relation a function or not a function?

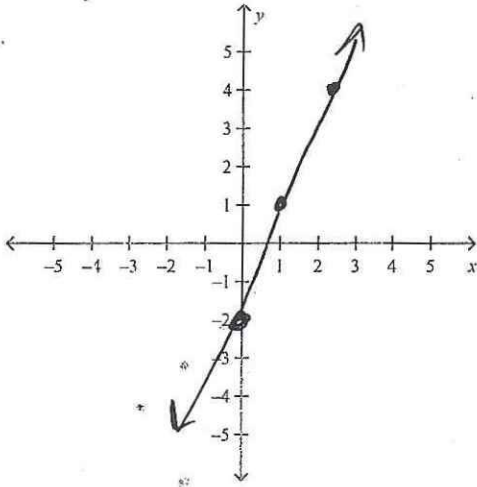
5.

| x | y |
|----|----|
| -3 | 2 |
| -2 | 5 |
| 1 | -4 |
| 3 | -5 |

Function

Solve the equation for y. Then graph the equation.

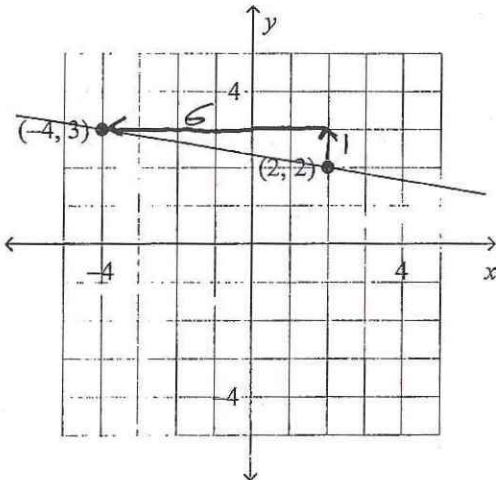
6. $-3x + y = -2$



$$\begin{array}{r} -3x + y = -2 \\ +3x \quad \quad +3x \\ \hline y = 3x - 2 \end{array}$$

Find the slope of the line.

7.



$m = \frac{1}{6}$

Find the slope of the line through the pair of points.

8. $A(4, 4), P(-9, 4)$

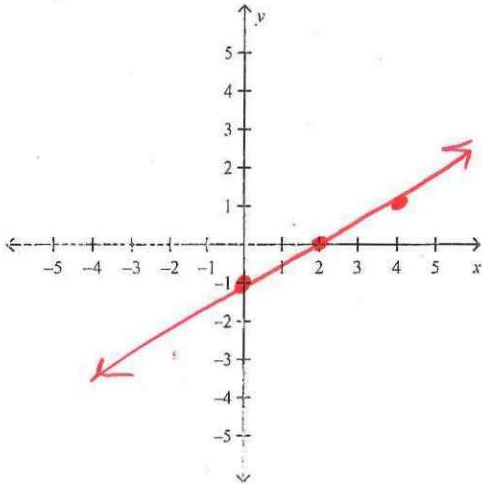
$$\frac{4-4}{-9-4} = \frac{0}{-13}$$



No Slope / Zero Slope

Graph the linear equation.

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



Write a rule for the linear function in the table.

10.

| x | f(x) |
|----|------|
| 2 | 6 |
| 5 | 15 |
| 8 | 24 |
| 11 | 33 |

+3
+3
+3

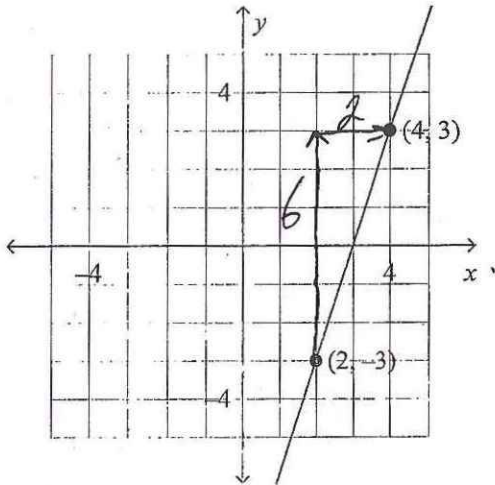
+9
+9
+9

$f(x) = 3x$

Name: _____

ID: A

11. Write a rule for the linear function in the graph.



*Use substitution to solve

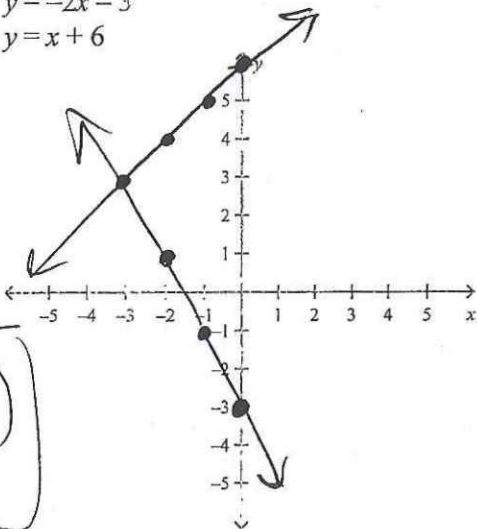
$$(3) = 3(4) + ?$$

$$(3) = 12 \boxed{-9}$$

$$y = 3x - 9$$

Solve the system of equations by graphing.

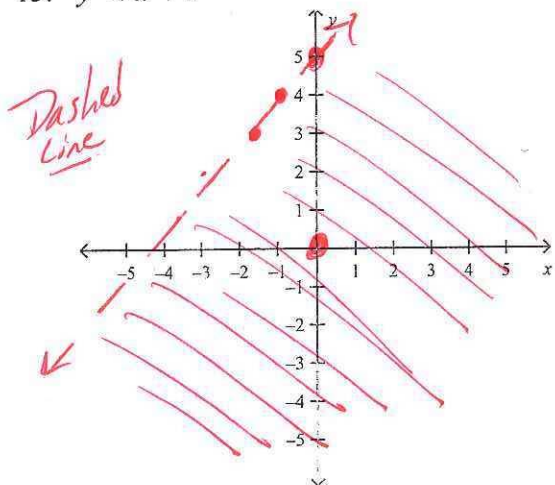
12. $y = -2x - 3$
 $y = x + 6$



$(-3, 3)$

Graph the inequality on a coordinate plane.

13. $y < x + 5$

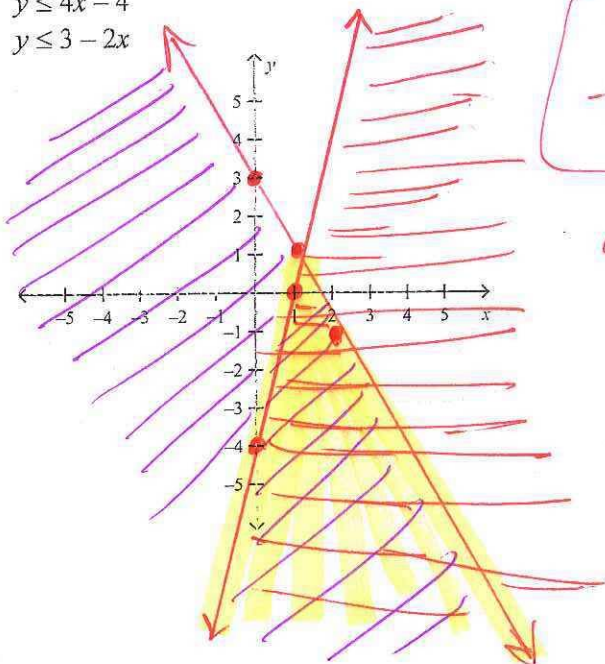


$5 < 0 + 5$
False

$0 < 0 + 5$
True

Solve the system of inequalities by graphing.

14. $y \leq 4x - 4$
 $y \leq 3 - 2x$



$y \leq 4x - 4$
 $-4 \leq 0 - 4$
True

$0 \leq 0 - 4$
False

$y \leq 2x + 3$
 $3 \leq 0 + 3$
True

$0 \leq 0 + 3$
True