

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

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

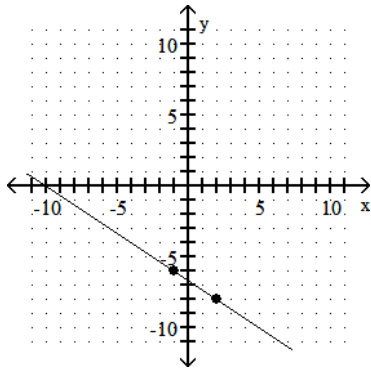
1) (3, 2) and (9, 4)

2) (7, 6) and (7, 8)

3) (-6, -5), (3, -5)

Find the slope of the line.

4)



Find an equation in slope-intercept form of the line that passes through the given point and has slope m .

5) (0, 5); $m = -\frac{5}{9}$

6) (12, -5); $m = -\frac{4}{5}$

Sketch the graph of the line by locating the second point with the rise-and-run method.

7) Through (0, 2), $m = \frac{1}{2}$

Find an equation in slope-intercept form for the nonvertical lines. Write the vertical lines in the form $x = h$.

8) Passing through (-2, 9) and (0, 4)

9) Passing through (5, 10) and (5, -2)

10) Passing through (6, 8) and (6, -9)

Use the given conditions to find an equation in slope-intercept form of each of the nonvertical lines.

Write vertical lines in the form $x = h$.

11) y-intercept -17; x-intercept 45

12) Parallel to $8x + 9y = -102$; passing through (-6, -10)

13) Perpendicular to $7x - 4y = 1$; passing through (-1, -2)

Solve the problem.

14) The cost for labor associated with fixing a washing machine is computed as follows: There is a fixed charge of \$30 for the repairman to come to the house, to which a charge of \$21 per hour is added. Find an equation that can be used to determine the labor cost, C , of a repair that takes x hours.

15) An investment is worth \$3589 in 1993. By 1996 it has grown to \$4858. Let y be the value of the investment in the year x , where $x = 0$ represents 1993. Write a linear equation that models the value of the investment in the year x .

16) To convert a temperature from degrees Celsius to degrees Fahrenheit, you multiply the temperature in degrees Celsius by 1.8 and then add 32 to the result. Find a linear equation to convert from degrees Celsius to degrees Fahrenheit. Use this function to convert 41°C to $^\circ\text{F}$.

17) In a certain city, the cost of a taxi ride is computed as follows: There is a fixed charge of \$2.15 as soon as you get in the taxi, to which a charge of \$1.70 per mile is added. Find an equation that can be used to determine the cost, C , of an x -mile taxi ride, and use this equation to find the cost of a 8-mile taxi ride.