

**Write an equation of a line in point-slope form given a slope and a point.**

1) (4, 4),  $m = 1$

2) (2, 0), slope =  $\frac{1}{2}$

3) (3, 2), rate of change = 2

Equation \_\_\_\_\_

Equation \_\_\_\_\_

Equation \_\_\_\_\_

4) (-2, 5),  $m = -4$

5) (3, -2), slope =  $-\frac{1}{2}$

6) (1, 1), rate of change = -3

Equation \_\_\_\_\_

Equation \_\_\_\_\_

Equation \_\_\_\_\_

7) (-4, 7),  $m = 0$

8) (2, 0), slope = undefined

9) (-3, -5), rate of change =  $\frac{5}{3}$

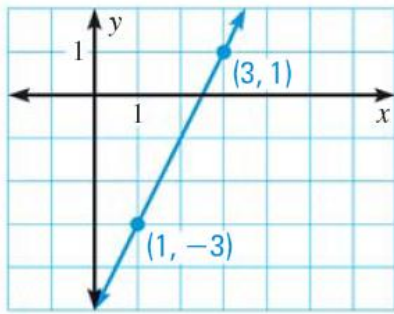
Equation \_\_\_\_\_

Equation \_\_\_\_\_

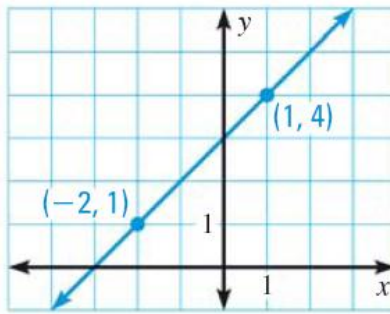
Equation \_\_\_\_\_

**Write an equation in point-slope form of the line below.**

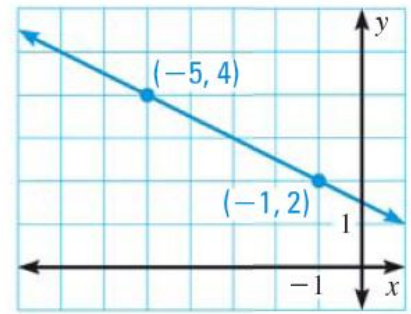
10)



11)



12)



**Write an equation in point-slope form that passes through these points:**

13) (7, 2) and (2, 12)

14) (6, -2) and (12, 1)

15) (-4, -1) and (6, -7)

16) (4, 5) and (-4, -5)

17) (-3, -20) and (4, 36)

18) (-5, -19) and (5, 13)

**Write an equation in SLOPE-INTERCEPT form that passes through these points:**

19) During the period of 1994-2004, the annual sales of a small company increased by \$10,000 per year. In 1997, the annual sales were at \$97,000. Write an equation that gives the annual sales as a function of the number of years since 1994. Then, find the sales in 2000.

20) You are designing a sticker to advertise your band. A company charges \$225 for the first 1,000 stickers and \$80 for each additional 1,000 stickers. Write an equation that gives the total cost (in dollars) of stickers as a function of the number (in thousands) of stickers ordered. Find the cost of 9,000 stickers.