Name_____Date_____Hour_____

Worksheet 5.1 - Writing Linear Equations in Slope-Intercept Form – pages 273-278

LEVEL 1

Find the slope and the *y*-intercept of the line.

1) $y = 2x + 5$

m = _____
b = _____

2) $y = \frac{1}{2}x$

m = _____
b = _____

3) $y = -5$

m = _____
b = _____

4) $2y = 4x - 3$

m = _____
b = _____

Write an equation of the line.

5) The slope is 5; the *y*-intercept is 0.

6) The slope is 0; the *y*-intercept is 9.

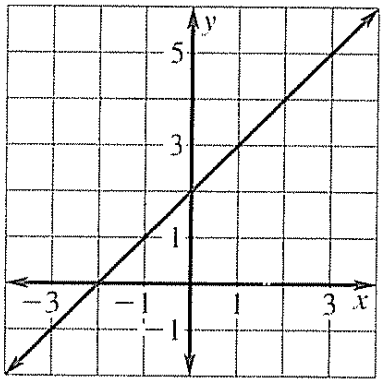
7) The slope is $-\frac{4}{3}$; the *y*-intercept is -3.

8) The slope is -5; the *y*-intercept is 1.

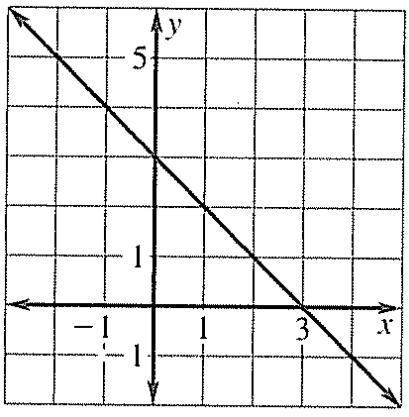
LEVEL 2

Write an equation of the line shown in the graph.

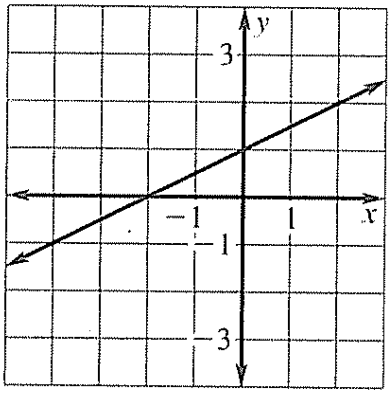
9)_____



10)_____



11)_____



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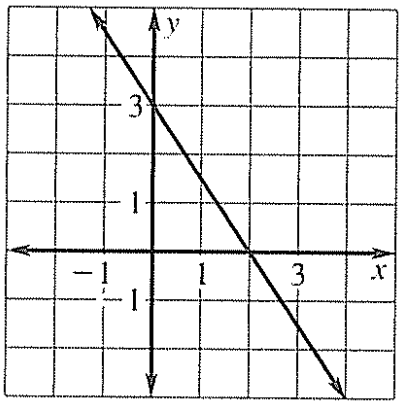


LEVEL 3

13) Write a linear equation to model the situation. Each week you put $5 of your allowance in a savings account.

14) Use the equation you wrote above to complete the table below.

Week (x)	***1***	***2***	***3***	***4***	***5***
Amount saved (y)					

LEVEL 4

15) A car rental company charges a flat fee of $29 and an additional $0.15 per mile to rent a compact car. Write an equation to model the total charge, *y* (in dollars) in terms of *x*, the number of miles driven.

16) Use the equation you wrote above to complete the table below.

Miles (x)	25	50	100	200
Cost (y)				

17) How would the graph change if each additional mile were $0.20?

Name_____Date_____Hour_____

Worksheet 5.2 - Writing Linear Equations Given Slope and a Point – pages 279-284

LEVEL 1

Write an equation of the line that passes through the point and has the given slope. Write the equation in slope-intercept form. Show your work.

1) (3, 5) and $m = -1$

2) (2, 8) and $m = 0$

3) (0, 0) and $m = -7$

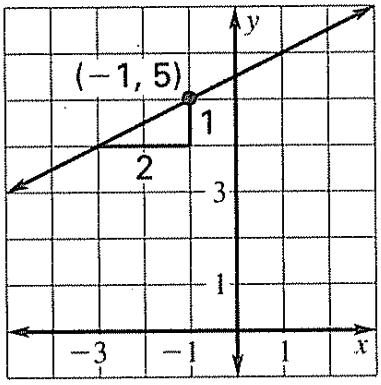
4) (0, -2) and $m = -\frac{5}{3}$

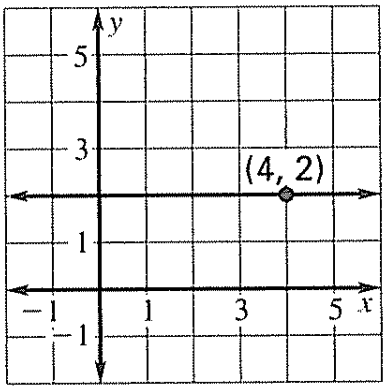
LEVEL 2

Write the slope-intercept form of the equation of the line. Show your work.

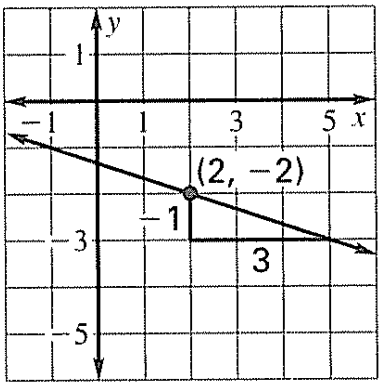
5)_____

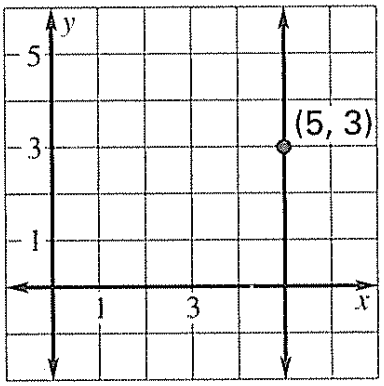
6)_____





7)_____ 8)_____





LEVEL 3

Write an equation of the line that is parallel to the given line and passes through the given point. Show your work.

9) $y = 5x + 2;\ (3,2)$

10) $y = -2x - 1;\ (2,6)$

LEVEL 4

11) Between 1990 and 2000, the monthly rent for a one-bedroom apartment increased by $27 per year. In 1997, the rent was $375 per month.

a) Find an equation that gives the monthly rent in dollars, *y*, in terms of the year, *t*. Let *t* = 0 correspond to 1990. Show your work.

b) Determine the rent for 1999. Show your work.