

**Unit 0 HW 0.6 Write an equation for a line****Write an equation of each line.**

1. slope  $-2$ ;  $(2, 1)$

2. slope  $= -1$ ;  $(2, 0)$

3. slope  $= 0$ ;  $(-2, 3)$

4. slope  $= \frac{3}{4}$ ;  $(-3, 5)$

5. slope  $= \frac{5}{9}$ ;  $(10, 4)$

6. slope  $= -\frac{1}{4}$ ;  $(0, -1)$

**Write in point-slope form an equation of the line through each pair of points.**

7.  $(-2, 3)$  and  $(2, 9)$

8.  $(0, 7)$  and  $(3, 5)$

9.  $(-2, -3)$  and  $(2, -1)$

10.  $(-5, -2)$  and  $(-3, 8)$

11.  $(-12, 20)$  and  $(-21, 29)$

12.  $(11, 8)$  and  $(-2, -3)$

**Write in slope intercept form.**

13.  $x + 3y = -4$

14.  $-5x - 2y = -6$

**Write and graph an equation to represent each situation.**

15. You have a \$30 gift card to an online music store. The gift card will allow you to purchase 5 albums.

16. You park your car in a parking garage for 6 hours. Your fee upon exiting the garage is \$42.

**Write the equation of the line through each point.****Use slope-intercept form.**

17. through  $(7, 1)$  and perpendicular to  $y = -x + 3$

18. through  $(2, 9)$  and parallel to  $y = 3x - 2$

19. through  $(3, 1)$  and perpendicular to  $-4x + y - 1 = 0$

20. through  $(-6, 2)$  and perpendicular to  $x = -2$

21. a. Graph  $y = 3x + 2$ .

b. Write an equation of the line parallel to the line in part (a) passing through the point  $(2, 0)$ . Graph the line on the same set of axes.c. Write an equation of the line perpendicular to the line in part (a) passing through the point  $(0, -4)$ . Graph the line on the same set of axes.

d. What is the relationship between the lines from part (b) and part (c)?