

Name \_\_\_\_\_

Date \_\_\_\_\_ Pd. \_\_\_\_\_

**Notes: Writing Equations in Slope-Intercept Form Day 2****Example****Write an equation of the line that passes through  $(1, 2)$  and  $(3, -2)$ .**

Find the slope  $m$ . To find the  $y$ -intercept, replace  $m$  with its computed value and  $(x, y)$  with  $(1, 2)$  in the slope-intercept form. Then solve for  $b$ .

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### Exit Card: Writing Equations in Slope-Intercept Form Day 2

Sally runs a lemonade stand. The profit that she makes is a linear function of the high temperature for the day. The table below shows some high temperatures and the profit (a negative number means a loss) for three days.

High Temperature <i>t</i>	Profit <i>P(t)</i>
85°F	\$ 20
65°F	\$ -12
95°F	\$ 36

Which of these functions represents the relationship between the high temperature (*t*) and the profit *P(t)*?

- A.  $P(t) = 0.625t - 72.5$       B.  $P(t) = 1.6t - 116$   
 C.  $P(t) = 0.625t + 72.5$       D.  $P(t) = 1.6t + 116$

An online service charges a flat fee per month for no use, then a fee for each hour  
 The chart below shows how much Lisa was charged for the first two months of the year.

Month	Hours	Charge
January	6	\$44
February	9	\$56

How much is the flat fee for no use?

	/	/	/	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

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**Homework: Pages 284 – 285 (27, 30, 31, 40 – 43, 46, 47)**

27. Write the equation of the line that passes through (1, 1) and (7, 4).

30. Write the equation of the line that has  $x$ -intercept =  $-3$  and  $y$ -intercept =  $5$ .

31. Write the equation of the line that has  $x$ -intercept =  $3$  and  $y$ -intercept =  $4$ .

40. If you rent a canoe for 3 hours, you will pay \$45 [the rate for canoe rental is a daily rate plus \$10 per hour]. Write a linear equation to find the total cost  $C$  of renting the canoe for  $h$  hours.

Consider the line  $l$  that passes through  $(14, 2)$  and  $(28, 6)$ .

41. Write an equation for the line  $l$ .

42. What is the slope of line  $l$ ?

43. Where does the line  $l$  intersect the  $x$ -axis? the  $y$ -axis?

46. Which is an equation for the line with slope  $\frac{1}{3}$  through  $(-2, 1)$ ?

A  $y = \frac{1}{3}x + 1$

B  $y = \frac{1}{3}x + \frac{5}{3}$

C  $y = \frac{1}{3}x - \frac{5}{3}$

D  $y = \frac{1}{3}x + \frac{1}{3}$

47. About 20,000 fewer babies were born in California in 1996 than in 1995. In 1995, about 560,000 babies were born. Which equation can be used to predict the number of babies  $y$  (in thousands), born  $x$  years after 1995?

A  $y = 20x + 560$

B  $y = -20x + 560$

C  $y = -20x - 560$

D  $y = 20x - 560$