ADDITIONAL PRACTICE AND PROBLEM SOLVING

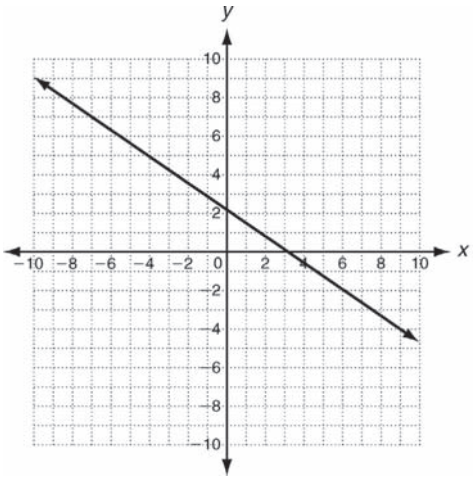
Assign these pages to help your students practice and apply important lesson concepts. For additional exercises, see the Student Edition.

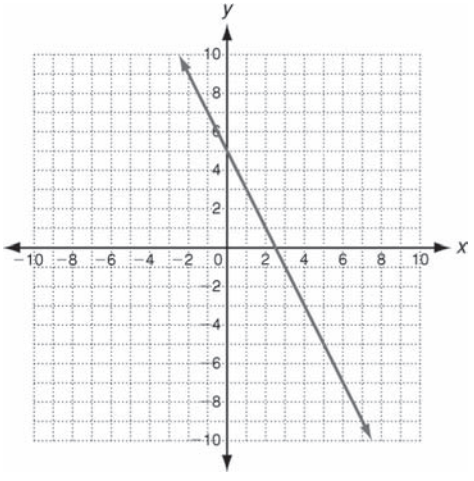
Answers

Additional Practice

1. $y - 2 = 3(x + 4)$

2. $y + 1 = -(x - 6)$

3. 

4. 

5. $y = -4x + 1$

6. $y = \frac{1}{2}x - 1$

7. $y = 4x - 7$

8. $y = \frac{1}{2}x - 3$

9. x-int: 1, y-int: -2

10. x-int:6, y-int: 8

11. $y = 0.17x + 3$; \$13.20

Problem Solving

1. Possible answer:
   $y - 130 = 1.2(x - 10)$;
   $y = 1.2x + 118$;
   136

2. $y = 3x + 32$

3. $y = \frac{1}{10}x + 5$; \$7.50

4. B

5. F

6. D

Name _____ Class _____ Date _____ **11-3**

Additional Practice

Write an equation in point-slope form for the line with the given slope that contains the given point.

1. slope = 3; (–4, 2)

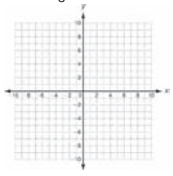
_____

2. slope = –1; (6, –1)

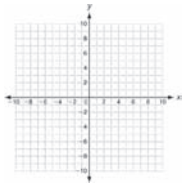
_____

Graph the line described by each equation.

3. $y + 2 = -\frac{2}{3}(x - 6)$



4. $y + 3 = -2(x - 4)$



Write the equation that describes the line in slope-intercept form.

5. slope = –4; (1, –3) is on the line

_____

6. slope = $\frac{1}{2}$; (–8, –5) is on the line

_____

7. (2, 1) and (0, –7) are on the line

_____

8. (–6, –6) and (2, –2) are on the line

_____

Find the intercepts of the line that contains each pair of points.

9. (–1, –4) and (6, 10) _____

10. (3, 4) and (–6, 16) _____

11. The cost of internet access at a cafe is a function of time. The costs for 8, 25, and 40 minutes are shown. Write an equation in slope-intercept form that represents the function. Then find the cost of surfing the web at the cafe for one hour.

_____

Time (min)	8	25	40
Cost ($)	4.36	7.25	9.80

Problem Solving

Write the correct answer.

1. The number of students in a school has been increasing at a constant rate. The table shows the number of students in the school for certain numbers of years since 1995.

Years Since 1995	Number of Students
0	118
5	124
10	130

Write an equation in point-slope form that represents this linear function.

_____

Write the equation in slope-intercept form.

_____

Assuming the rate of change remains constant, how many students will be in the school in 2010?

_____

2. Toni is finishing a scarf at a constant rate. The table shows the number of hours Toni has spent knitting this week and the corresponding number of rows in the scarf.

Toni's Knitting	
Hours	Rows of Knitting
2	38
4	44
6	50

Write an equation in slope-intercept form that represents this linear function.

_____

3. A photo lab manager graphed the cost of having photos developed as a function of the number of photos in the order. The graph is a line with a slope of $\frac{1}{10}$ that passes through (10, 6). Write an equation in slope-intercept form that describes the cost to have photos developed. How much does it cost to have 25 photos developed?

_____

The cost of a cell phone for one month is a linear function of the number of minutes used. The total cost for 20, 35, and 40 additional minutes are shown. Select the best answer.

4. What is the slope of the line represented in the table?

A 0.1 C 2

B 0.4 D 2.5

5. What would be the monthly cost if 60 additional minutes were used?

F $64 H $84

G $72 J $150

Cell-Phone Costs			
Number of Additional Minutes	20	35	40
Total Cost	$48	$54	$56

6. What does the *y*-intercept of the function represent?

A total cost of the bill

B cost per additional minute

C number of additional minutes used

D cost with no additional minutes used

Notes