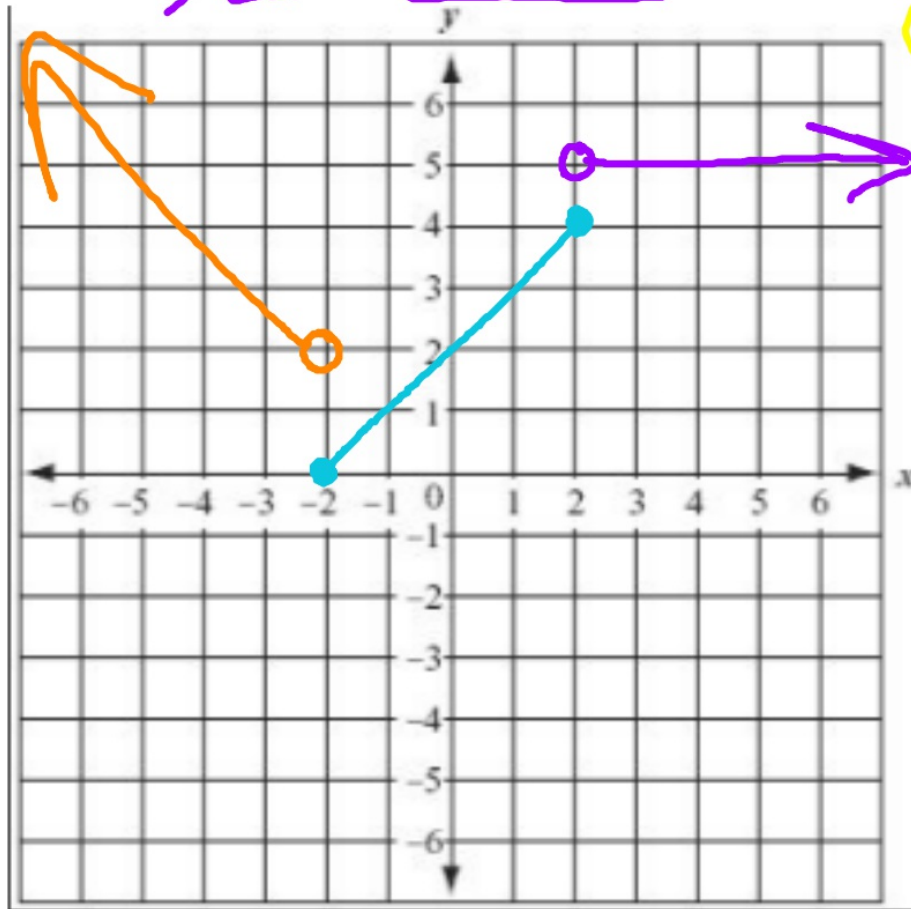


$$y = -x$$

x	y
-2	2
-3	3

14. Graph $f(x) = \begin{cases} -x & \text{if } x < -2 \\ x + 2 & \text{if } -2 \leq x \leq 2 \\ 5 & \text{if } x > 2 \end{cases}$

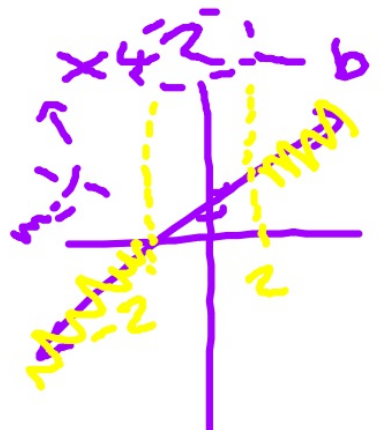
$y = mx + b$



$$y = x + 2$$

$x = -2; y = -2 + 2 = 0$

$x = 2; y = 2 + 2 = 4$



1. State the domain and range of the relation shown in the table. Then determine if it is a function. If it is a function, determine if it is *one-to-one*, *onto*, *both*, or *neither*.

x	y
-2	3
4	-1
3	2
6	3

$D = \{-2, 3, 4, 6\}$;
 $R = \{-1, 2, 3\}$;
 onto

Find each value if $f(x) = -2x + 3$.

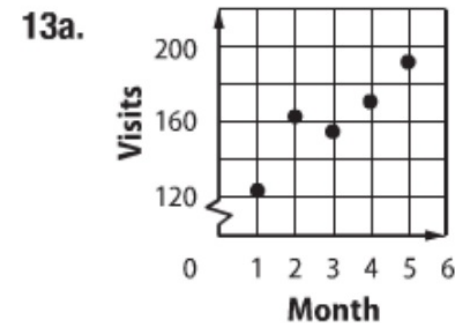
2. $f(-4)$ **11**
3. $f(3y)$ **$-6y + 3$**
4. Write $2y = -6x + 4$ in standard form. Identify A , B and C . **$3x + y = 2; 3, 1, 2$**
5. Find the x -intercept and the y -intercept for $3x - 4y = -24$. **$(-8, 0), (0, 6)$**

10. Write an equation in slope-intercept form for the line that has slope -2 and passes through the point $(3, -4)$. **$y = -2x + 2$**
11. Write an equation of the line that passes through the points $(2, -4)$ and $(1, 6)$. **$y = -10x + 16$**
12. Write an equation in slope-intercept form for the line that passes through $(-3, 5)$ and is parallel to $y = -6x + 1$. **$y = -6x - 13$**
13. **EMERGENCY ROOM** A hospital tracks the number of emergency room visits during the fall and winter months. **a. See Chapter 2 Answer Appendix.**

Month	Oct	Nov	Dec	Jan	Feb
Visits	124	163	155	171	192

- a. Make a scatter plot and describe the correlation.
- b. Use two ordered pairs to write a prediction equation. **$y = 17x + 107$**
- c. Use your prediction equation to predict the number of emergency room visits for March. **209**

Practice Test



positive correlation

6. **MULTIPLE CHOICE** The cost of producing x pumpkin pies at a small bakery is given by $C(x) = 49 + 1.75x$. Find the cost of producing 25 pies. **C**

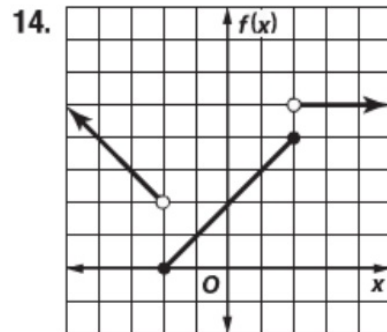
- A \$74.00
- B \$81.50
- C \$92.75
- D \$108.25

Find the slope of the line that passes through each pair of points.

- 7. $(1, 6), (3, 10)$ **2**
- 8. $(-2, 7), (3, -1)$ **$-\frac{8}{5}$**

9. **MULTIPLE CHOICE** Find the equation of the line that passes through $(0, -3)$ and $(4, 1)$. **H**

- F $y = -x + 3$
- G $y = -x - 3$
- H $y = x - 3$
- J $y = x + 3$

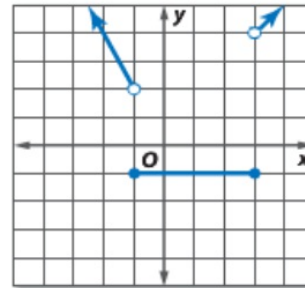


14. Graph $f(x) = \begin{cases} -x & \text{if } x < -2 \\ x + 2 & \text{if } -2 \leq x \leq 2 \\ 5 & \text{if } x > 2 \end{cases}$.

See Chapter 2
Answer Appendix.

15. Write the piecewise-defined function shown.

See margin.



Additional Answer

$$15. y = \begin{cases} -2x & \text{if } x < -1 \\ -1 & \text{if } -1 \leq x \leq 3 \\ x + 1 & \text{if } x > 3 \end{cases}$$

16. Identify the domain and range of $y = \llbracket x \rrbracket + 2$.
D = {all real numbers}; R = {all integers}

17. Describe the translation to $y = x^2 + 5$.
 $y = x^2$ shifted 5 units up

18. Describe the reflection in $y = -|x|$.
over the x-axis

19, 20. See Chapter 2

Graph each inequality. **Answer Appendix.**

19. $y \geq 4x - 1$

20. $2x + 6y < -12$

