WRITING LINEAR FUNCTIONS Write an equation for a linear function $f$ that has the given values.
23. $f(-2)=15, f(1)=9$
24. $f(-2)=-2, f(4)=-8$
25. $f(2)=7, f(4)=6$
26. $f(-4)=-8, f(-8)=-11$
27. $f(3)=1, f(6)=4$
28. $f(-5)=9, f(11)=-39$
29. TAKS REASONING Which function has the values $f(4)=-15$ and $f(7)=57$ ?
(A) $f(x)=14 x-71$
(B) $f(x)=24 x-1361$
(C) $f(x)=24 x+360$
(D) $f(x)=24 x-111$

USING A TABLE OR DIAGRAM Write an equation that represents the linear function shown in the table or mapping diagram.

30. | $x$ | $f(x)$ |
| :---: | :---: |
| -4 | 6 |
| 4 | 4 |
| 8 | 3 |
| 12 | 2 |
31. 

| $x$ | $f(x)$ |
| :---: | :---: |
| -3 | 8 |
| 3 | 4 |
| 6 | 2 |
| 9 | 0 |

32. 


33.


TAKS REASONING Tell whether the given information is enough to write an equation of a line. Justify your answer.
34. Two points on the line
35. The slope and a point on the line
36. The slope of the line
37. Both intercepts of the line

USING A GRAPH In Exercises 38-41, use the graph at the right.
38. Write an equation of the line shown.
39. Write an equation of a line that has the same $y$-intercept as the line shown but has a slope that is 3 times the slope of the line shown.
40. Write an equation of a line that has the same slope as the line shown but has a $y$-intercept that is 6 more than the $y$-intercept of the line shown.

 intersect? Which of the lines never intersect? Justify your answers.

REASONING Decide whether the three points lie on the same line. Explain how you know. If the points do lie on the same line, write an equation of the line that passes through all three points.
42. $(-4,-2),(2,2.5),(8,7)$
43. $(2,2),(-4,5),(6,1)$
44. ( $-10,4$ ), ( $-3,2.8$ ), ( $-17,6.8$ )
45. $(-5.5,3),(-7.5,4),(-4,5)$
46. CHALLENGE A line passes through the points $(-2,3),(2,5)$, and $(6, k)$. Find the value of $k$. Explain your steps.

