EXAMPLE 2
on p. 73
for Exs. 10-20

EXAMPLE 3
on p. 74
for Exs. 21-23

EXAMPLE 4 on p. 75
for Exs. 25-33

IDENTIFYING FUNCTIONS Tell whether the relation is a function. Explain.
10.

11.

12.

13.


ERROR ANALYSIS Describe and correct the error in the student's work.
14.

The relation given by the ordered pairs $(-4,2),(-1,5),(3,6)$, and $(7,2)$ is not a function because the inputs -4 and 7 are both mapped to the output 2.
15.

| $x$ | 0 | 1 | 2 | 1 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 5 | 6 | 7 | 8 | 9 |

The relation given by the table is a function because there is only one value of $x$ for each value of $y$.


IDENTIFYING FUNCTIONS Tell whether the relation is a function. Explain.
16. $(3,-2),(0,1),(1,0),(-2,-1),(2,-1)$
(17.) $(2,-5),(-2,5),(-1,4),(-2,0),(3,-4)$
18. $(0,1),(1,0),(2,3),(3,2),(4,4)$
19. $(-1,-1),(2,5),(4,8),(-5,-9),(-1,-5)$
20. taks reasoning The relation given by the ordered pairs $(-6,3),(-2,4)$, $(1,5)$, and $(4,0)$ is a function. Which ordered pair can be included with this relation to form a new relation that is also a function?
(A) $(1,-5)$
(B) $(6,3)$
(C) $(-2,19)$
(D) $(4,4)$

VERTICAL LINE TEST Use the vertical line test to tell whether the relation is a function.
21.

22.

23.

24. TAKS RESPONSE Explain why a relation is not a function if a vertical line intersects the graph of the relation more than once.

## GRAPHING EQUATIONS Graph the equation.

25. $y=x+2$
26. $y=-x+5$
27. $y=3 x+1$
28. $y=5 x-3$
29. $y=2 x-7$
30. $y=-3 x+2$
31. $y=-2 x$
32. $y=\frac{1}{2} x+2$
33. $y=-\frac{3}{4} x-1$
