

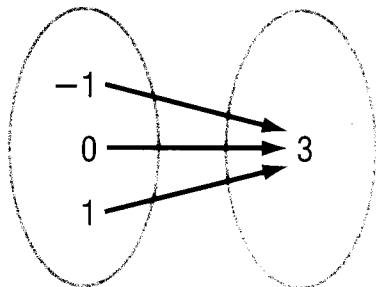
5-Minute Check

Transparency 4-7

BE-1A TUESDAY 1-23-07

Determine whether each relation is a function.

1.



2.

16	-8
12	-6
0	0
-4	2
-10	5

3. $\{(7, 0), (0, 7), (-7, 0), (0, -7)\}$

4. $y = 6$

5. If $g(x) = -2x - 2$, find $g(-2x)$.

6. **Standardized Test Practice** If $f(x) = \frac{1}{2}x + 6$, what is $f(50)$?

ANSWERS

1. yes

2. yes

3. no

4. yes

5. $g(-2x) = 4x - 2$

6. 31

FUNCTION NOTATION

A WAY TO WRITE EQUATIONS
THAT ARE A FUNCTION.

ADVANTAGES:

- ① TELLS you that your
EQUATION IS A FUNCTION.
- ② gives you A CONVENIENT
WAY TO WRITE "find
the value of the function
if x is ____"
- ③ NAMES THE FUNCTION

NOTE: COMMON NAMES
ARE f, g, h .

f is most common.

EX) YOUR EQUATION $y = 2x + 3$ IS A FUNCTION
WRITE THIS AS $y = f(x) = 2x + 3$

OR $f(x) = 2x + 3$

↑ ↑
RANGE DOMAIN

Read y is a function of $x = 2x + 3$
or f of x is $2x + 3$

(2)

EX)

y is same as f(x)

IF:

$$f(x) = 2x + 3$$

THEN:

$$f(-1) = 2(-1) + 3 = 1$$

$$f(0) = 2(0) + 3 = 3$$

$$f(1) = 2(1) + 3 = 5$$

x	y
-1	1
0	3
1	5

OR

x	f(x)
-1	1
0	3
1	5

EX) $f(x) = 4x - 1$

$g(x) = 5x + 2$

(x, y)

$$f(0) = 4(0) - 1 = -1$$

(0, -1)

$$g(0) = 5(0) + 2 = 2$$

(0, 2)

Ex 3 Pg 227

$$\text{If } f(x) = 2x + 5$$

FIND EACH VALUE.

$$\textcircled{A} \quad f(-2) = 2(-2) + 5 = 1$$

$$\textcircled{B} \quad f(1) + 4 = [2(1) + 5] + 4 = 11$$

$$\begin{aligned} \textcircled{C} \quad f(x+3) &= 2(x+3) + 5 \\ &= 2(\overbrace{x+3}) + 5 \\ &= 2x + 6 + 5 \end{aligned}$$

$$f(x+3) = 2x + 11$$

$$\textcircled{d} \quad f(c) = 2(c) + 5 = 2c + 5$$

Homework: Pg 230 # 29 to 40