

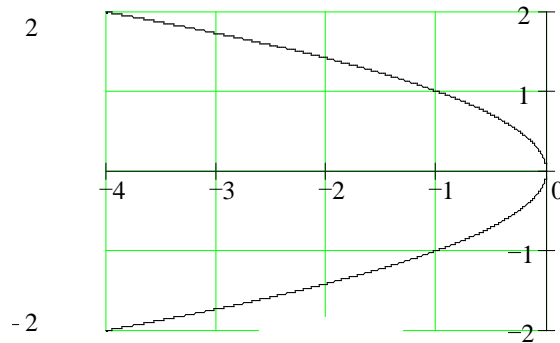
8.2 Graphs of Functions

- 1) Not a function
 3) Function
 5) Not a function
 7)

a)

| x | y |
|-----|-----|
| -4 | -2 |
| -1 | -1 |
| 0 | 0 |
| -1 | 1 |
| -4 | 2 |

b)



c) $x \leq 0$ at every element in the domain has a unique output.

9)

- a) Yes
 b) (1992, 49), (1993, 50), (1994, 51), (1995, 52), (1996, 52), (1997, 53)
 c) Domain = {1992, 1993, 1994, 1995, 1996, 1997}
 Range = {49, 50, 51, 52, 53}

11) A 3, B 1, C 2

13) Domain = $\{x : 4 \leq x\}$  x

Range = $\{y : 0 \leq y\}$  y

15) Domain = $\{x : x \leq -6\}$  x

Range = $\{y : y \geq 0\}$  y

Skill and Review

17)

a) $m = \frac{1}{2}$

b) $4x - 9y = 6$
 $-9y = -4x + 6$
 $y = \frac{4}{9}x - \frac{2}{3}$
 $m = \frac{4}{9}$

Write equation in slope-intercept form

19) $f(x) = \frac{\frac{1}{3}x + 8}{-4}$

a) $f(-9) = \frac{\frac{1}{3}(-9) + 8}{-4} = \frac{-3 + 8}{-4} = \frac{5}{-4} = -\frac{5}{4}$

b) $f(0.16) = -2.01$

c) $\frac{1}{4} = \frac{\frac{1}{3}x + 8}{-4}$
 $-1 = \frac{1}{3}x + 8$
 $-9 = \frac{1}{3}x$
 $x = -27$