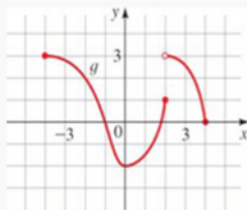


# Section 2.3

Answer ▾

8. **Values of a Function** The graph of a function  $g$  is given.

- Find  $g(-4)$ ,  $g(-2)$ ,  $g(0)$ ,  $g(2)$ , and  $g(4)$ .
- Find the domain and range of  $g$ .
- Find the values of  $x$  for which  $g(x) = 3$ .
- Estimate the values of  $x$  for which  $g(x) \leq 0$ .
- Find the net change in  $g$  between  $x = -1$  and  $x = 2$ .



a.  $g(-4) = 3$ ,  $g(-2) = 2$ ,  
 $g(0) = -2$ ,  $g(2) = 1$ ,  $g(4) = 0$

b. Domain =  $[-4, 4]$   
 Range =  $[-2, 3]$

c.  $x = -4$

d.  $-1 \leq x \leq 1.8$  and  $x = 4$

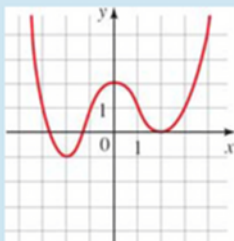
e.  $g(2) - g(-1) = 1 - 0 = 1$

43, 44, 45 and 46 **Local Maximum and Minimum Values** The graph of a function  $f$  is given.

Use the graph to estimate the following.

- All the local maximum and minimum values of the function and the value of  $x$  at which each occur.
- The intervals on which the function is increasing and on which the function is decreasing.

43.



44.

a. local max

$x = -2$  and  $x = 2$   
 $y = 2$  and  $y = 1$

local min

$x = 0$   
 $y = -1$

b. Increasing

$(-\infty, -2) \cup (0, 2)$

Decreasing

$(-2, 0) \cup (2, +\infty)$

Answer ▾

44.

