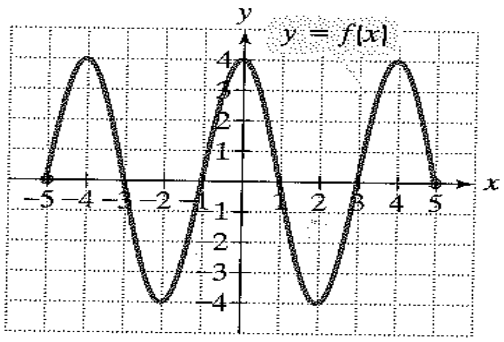
MAT 171 Homework Section 2.1b & 2.2b Functions and Their Graphs Name _____

In 1 -3, use the graph of x to find each indicated function value.

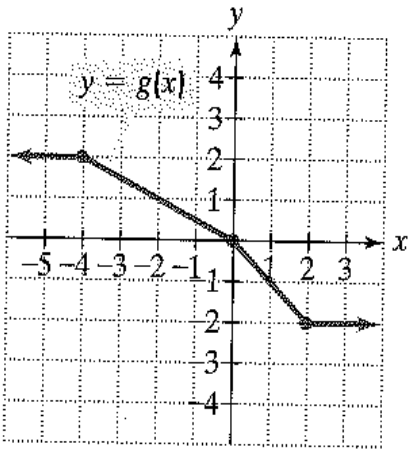


1) $f(-2)$

2) $f(4)$

3) $f(-3)$

Use the graph of g to solve 4 – 7.



4) $g(-4)$

5) $g(2)$

6) For what value of $x$is $g(x) = 1$?

7) For what value of $x$is $g(x) = -1$?

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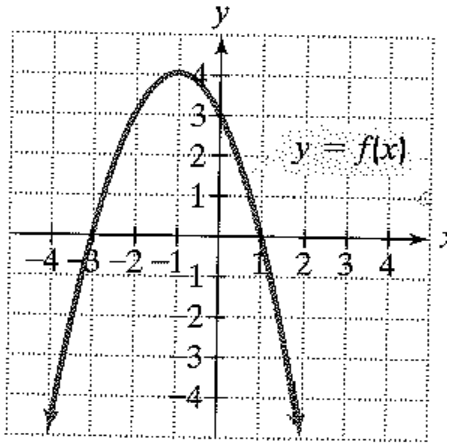
8) Use the graph to determine



a. Domain

b. Range

c. x-intercepts, if any

d. y -intercept, if any

e. $f(-2)$

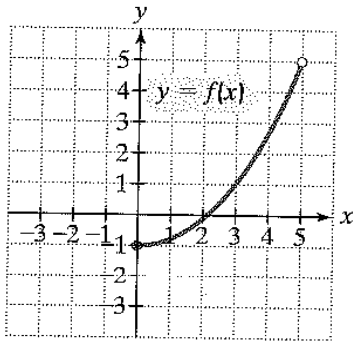
f. $f(2)$

g. Intervals on which the function is increasing

h. Intervals on which the function is decreasing

i. Intervals on which the function is constant

9) Use the graph to determine



a. Domain

b. Range

c. x-intercepts, if any

d. y -intercept, if any

e. $f(3)$

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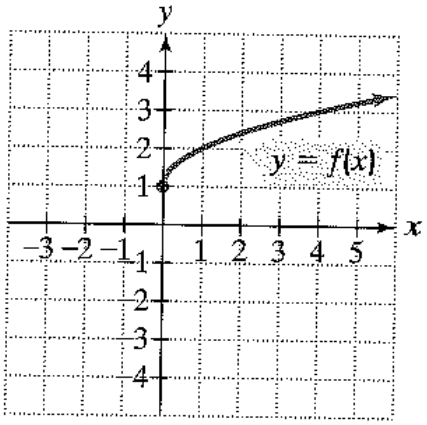
10) Use the graph to determine



a. Domain

b. Range

c. x-intercepts, if any

d. y -intercept, if any

e. $f(4)$

f. Intervals on which the function is increasing

g. Intervals on which the function is decreasing

h. Intervals on which the function is constant

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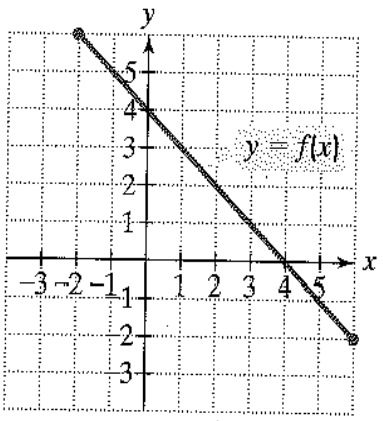
11) Use the graph to determine



a. Domain

b. Range

c. x-intercepts, if any

d. y -intercept, if any

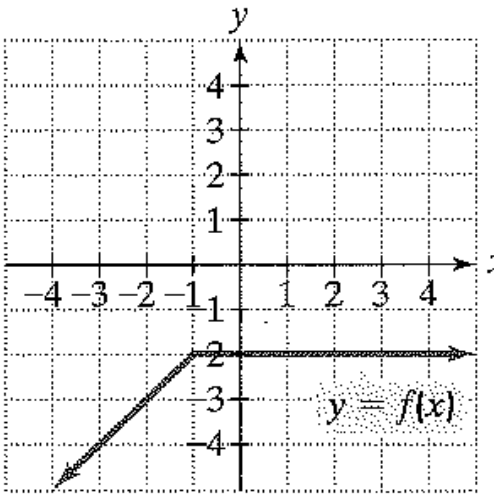
e. $f(-1)$

f. Intervals on which the function is increasing

g. Intervals on which the function is decreasing

h. Intervals on which the function is constant

12) Use the graph to determine



a. Domain

b. Range

c. x-intercepts, if any

d. y -intercept, if any

e. $f(-4)$

f. $f(4)$

g. Intervals on which the function is increasing

h. Intervals on which the function is decreasing

i. Intervals on which the function is constant

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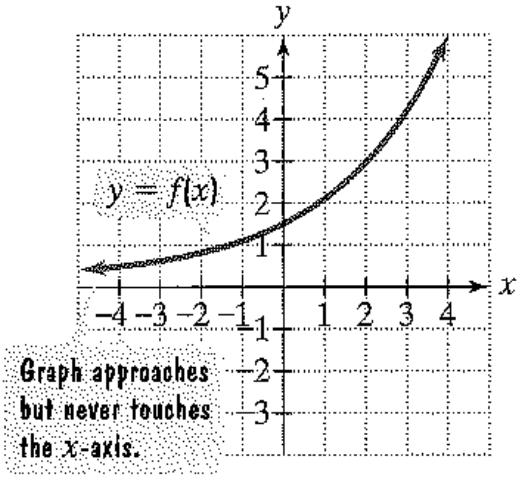
13) Use the graph to determine



a. Domain

b. Range

c. x-intercepts, if any

d. y -intercept, if any

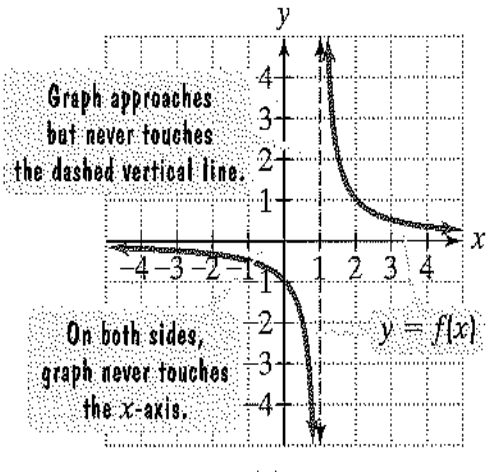
e. $f(4)$

f. Intervals on which the function is increasing

g. Intervals on which the function is decreasing

h. Intervals on which the function is constant

14) Use the graph to determine



a. Domain

b. Range

c. x-intercepts, if any

d. y -intercept, if any

e. $f(2)$

f. Intervals on which the function is increasing

g. Intervals on which the function is decreasing

h. Intervals on which the function is constant

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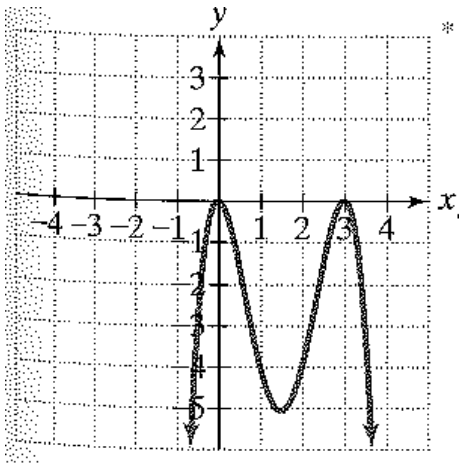
15) Use the graph to determine



a. Domain

b. Range

c. x-intercepts, if any

d. Intervals on which the function is increasing

e. Intervals on which the function is decreasing

f. Intervals on which the function is constant

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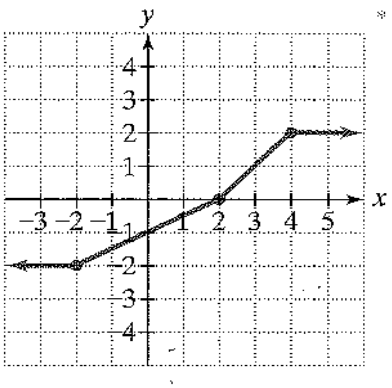
16) Use the graph to determine



a. Domain

b. Range

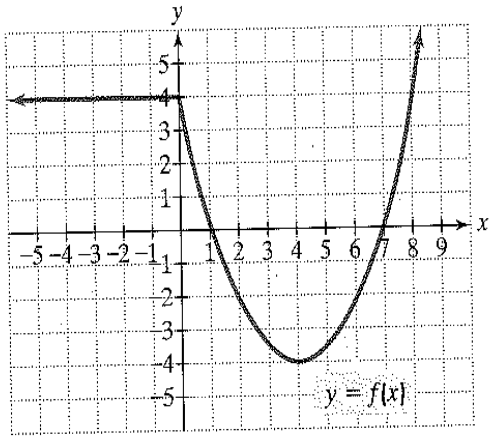
c. x-intercepts, if any

d. Intervals on which the function is increasing

e. Intervals on which the function is decreasing

f. Intervals on which the function is constant

17) Use the graph to determine



a. Domain

b. Range

c. x-intercepts

d. y -intercept

e. Intervals on which the function is increasing

f. Intervals on which the function is decreasing

g. Intervals on which the function is constant

h. $f(-3)$

i. For what value of $x$is $f(x) = -2$?

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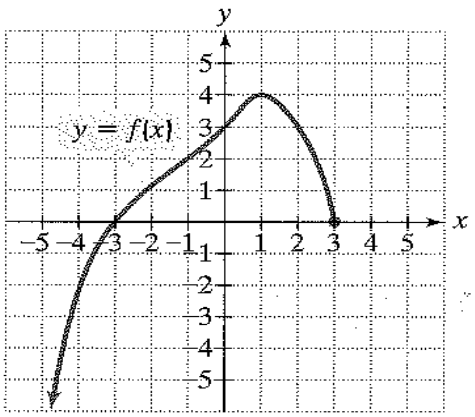
18) Use the graph to determine



a. Domain

b. Range

c. Zeros

d. $f(0)$

e. Intervals on which the function is increasing

f. Intervals on which the function is decreasing

g. Values of x for which $f(x) \leq 0$

h. The value of x for which $f(x) = 4$

i. Is $f(-1)$ positive or negative?