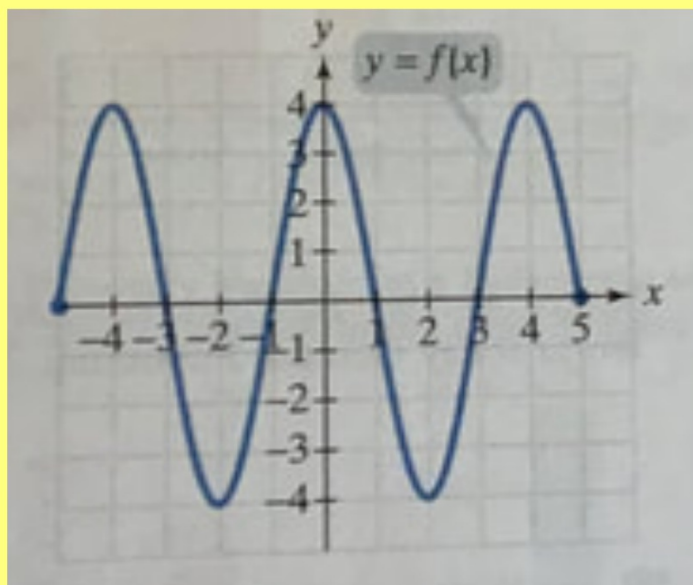


Sec 2.1.4 Analyzing Graphs
Determine function values, domain &
range, intercepts

from page 225
66-70...

$$\begin{aligned} f(x) \\ f(-2) &= -4 \\ f(2) &= -4 \\ f(4) &= 4 \\ f(-4) &= 4 \\ f(-3) &= 0 \\ f(-1) &= 0 \end{aligned}$$



from page 225...

78. Determine the

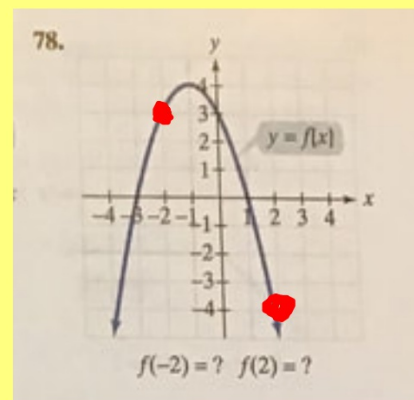
domain- \mathbb{R} $(-\infty, \infty)$

range- $(-\infty, 4]$

x-intercepts- $(-3, 0)$ & $(1, 0)$

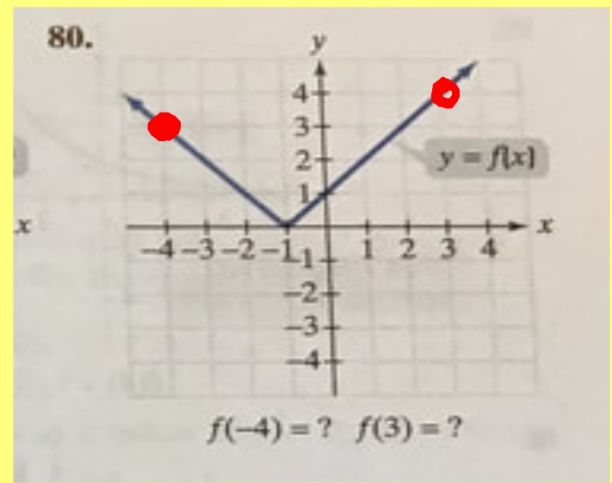
y-intercept- $(0, 3)$

$f(-2) = 3$
 $f(2) = -4$



domain....left to right
range.....bottom to top

80. domain- \mathbb{R}
range- $[0, \infty)$
x-intercepts $(-1, 0)$
y-intercept- $(0, 1)$
 $f(-4) = 3$
 $f(3) = 4$



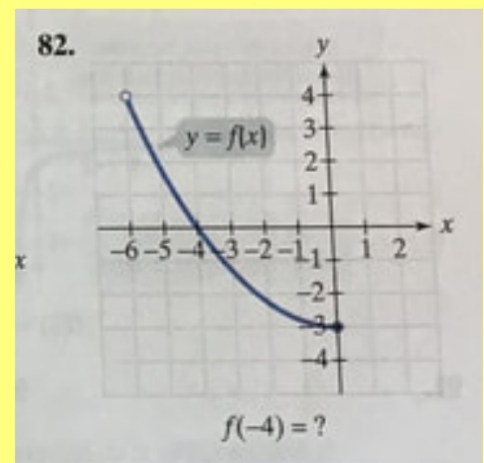
82. domain- $(-6, 0]$

range- $[-3, 4)$

x-intercepts- $(-4, 0)$

y-intercept- $(0, -3)$

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



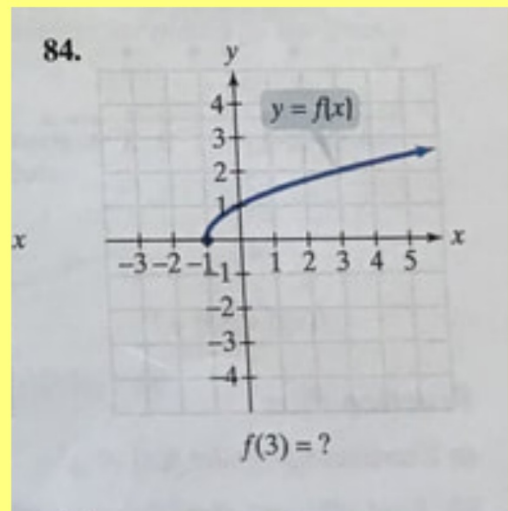
84. domain- $[-1, \infty)$

range- $[0, \infty)$

x-intercepts- $(-1, 0)$

y-intercept- $(0, 1)$

$f(3) = 2$



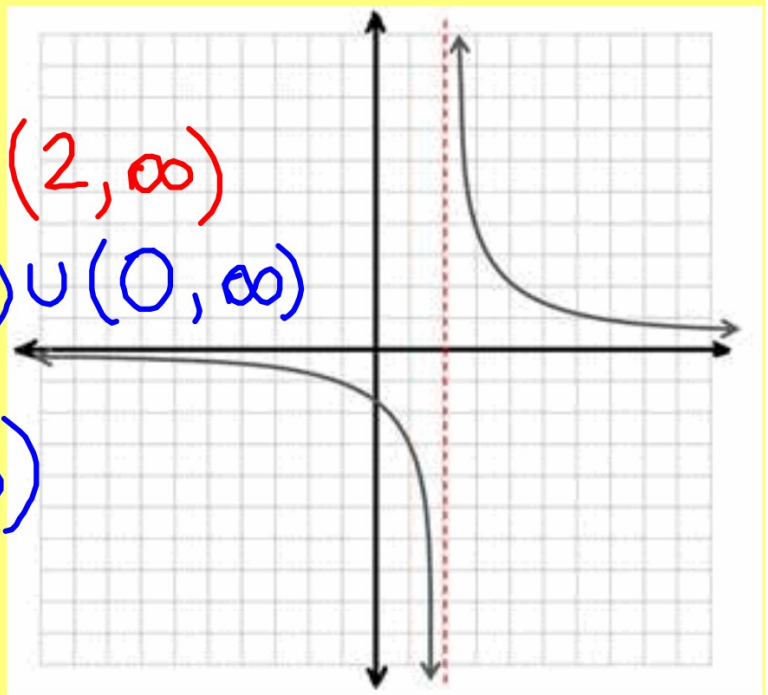
Not in text, using
graph to the right:

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

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

x-int- none

y-int- $(0, -1.75)$
?



-Suggested Practice-
Sec 2.1
all 71-76
odds 77-85
all 87-90

~~You should have a
hard copy of pp
225-226~~

$$71. (-4, 2)$$

$$72. (2, -2)$$

$$73. (-10, 2)$$

$$74. (10, -2)$$

$$*75. (-2, 1)$$

$$*76. (1, -1)$$

$$77.$$

$$d: (-\infty, \infty)$$

$$r: [-4, \infty)$$

$$x\text{-int: } (-3, 0) \text{ \& } (1, 0)$$

$$y\text{-int: } (0, -3)$$

$$f(-2) = -3 \quad f(2) = 5$$

$$d = \{x \mid x \in \mathbb{R}\}$$

$$r = \{y \mid y \geq -4\}$$

$\rightarrow d = \{x \mid x \in \mathbb{R}\}$

79. $d: (-\infty, \infty)$ 81. $d: [0, 5)$ $d: \{x \mid 0 \leq x < 5\}$
 $r: [1, \infty)$ $r: [-1, 5)$ $r = \{y \mid 1 \leq y < 5\}$
 $x\text{-int: none}$ $x\text{-int: } (2, 0)$
 $y\text{-int: } (0, 1)$ $y\text{-int: } (0, -1)$
 $f(-1) = 2$ $f(3) = 1$
 $f(3) = 4$

83.

$$d: [0, \infty)$$

$$d = \{x \mid x \geq 0\}$$

$$r: [1, \infty)$$

$$r = \{y \mid y \geq 1\}$$

x-int: none

y-int: (0, 1)

$$f(4) = 3$$

85.

$$d: [-2, 6]$$

$$r: [-2, 6]$$

$$x\text{-int: } (4, 0)$$

$$y\text{-int: } (0, 4)$$

$$f(-1) = 5$$

87.

$$d: \mathbb{R}$$

$$r: (-\infty, 2]$$

$$r = \{y \mid y \leq 2\}$$

$$x\text{-int: none}$$

$$y\text{-int: } (0, -2)$$

$$f(-4) = -5 \quad f(4) = -2$$

88.

$$d: \mathbb{R}$$

$$r: [0, \infty)$$

$$x\text{-int: } (-\infty, 0] \text{ or } \{x \mid x \leq 0\}$$

$$y\text{-int: } (0, 0)$$

$$f(-2) = 0 \quad f(2) = 1$$

89.

$d: \mathbb{R}$

$r: (0, \infty)$

$r = \{y \mid y > 0\}$

x-int: none

y-int: $(0, 1.5)$

$f(4) = 6$

90.

$$d: (-\infty, 1) \cup (1, \infty)$$

$$r: (-\infty, 0) \cup (0, \infty)$$

x-int: none

$$y\text{-int: } (0, -1)$$

$$f(2) = 1$$