Pg 176

(10)

x	y
4	1
5	1
6	1

Function.

D: {4, 5, 6}

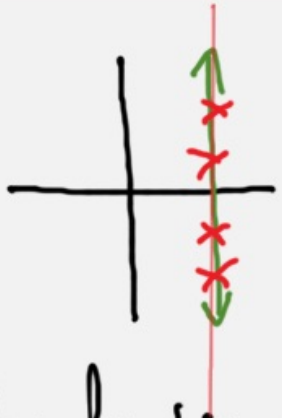
R: {1}

(36) a) $f(2) = \frac{4(2)^3+1}{(2)^3} = \frac{33}{8}$

b) $f(-2) = \frac{4(-2)^3+1}{(-2)^3} = \frac{-31}{-8} = \frac{31}{8}$

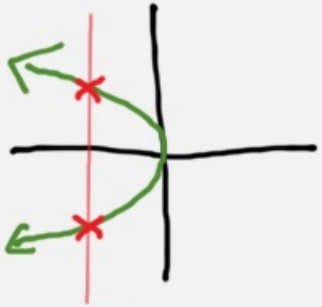
c) $f(-x) = \frac{4(-x)^3+1}{(-x)^3} = \frac{-4x^3+1}{-x^3}$ or $\frac{4x^3-1}{x^3}$

58



Not a function as it fails the vertical line test.

62



Not a function as it fails the vertical line test.

66 $f(2) = -4$

68 $f(-4) = 4$

70 $f(-1) = 0$

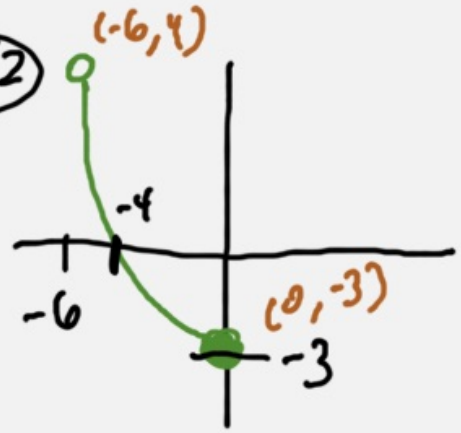
72 $g(2) = -2$

74 $g(10) = -2$

76 $g(?) = -1$

$? = 1$

82



a) D: $(-6, 0]$

b) R: $[-3, 4)$

c) x-int $(-4, 0)$

d) y-int $(0, -3)$

e) $f(-4) = 0$

90

a) D: $(-\infty, 1) \cup (1, \infty)$

b) R $(-\infty, 0) \cup (0, \infty)$

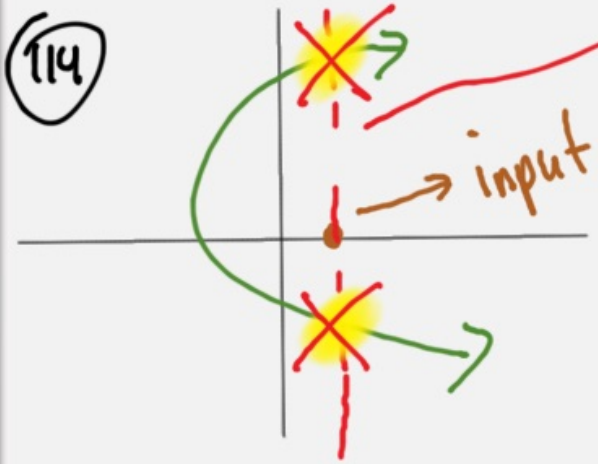
c) x-int: None

d) y-int: $(0, -1)$

e) $f(2) = 1$

(110) a function has only ONE output per input. A relation can have many outputs per input.

(114)



→ vertical line revealing multiple outputs for a single input.

Not a function by definition!

(122) False, the Domain is $[-4,4]$

(124) $f(-1) - f(4) = 2$

$1 - (-1) = 2$