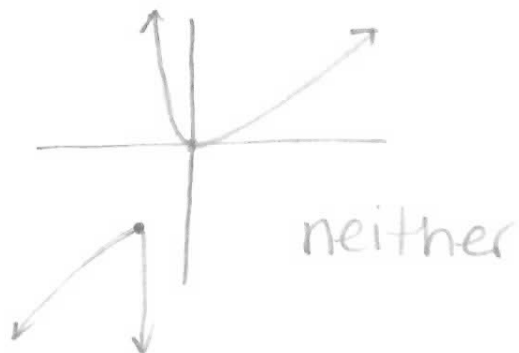


HW #3 p. 21

41. $g(x) = \frac{x^2}{x+1}$

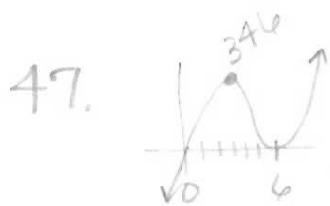
$$g(-x) = \frac{(-x)^2}{-x+1}$$

$$= \frac{x^2}{-x+1}$$



46.	x^1		D: $(-\infty, \infty)$	R: $(-\infty, \infty)$	Symmetry origin
	x^2		D: $(-\infty, \infty)$	R: $[0, \infty)$	Y-axis
	x^3		D: $(-\infty, \infty)$	R: $(-\infty, \infty)$	origin
	x^4		D: $(-\infty, \infty)$	R: $[0, \infty)$	Y-axis
	x^5		D: $(-\infty, \infty)$	R: $(-\infty, \infty)$	origin
	x^6		D: $(-\infty, \infty)$	R: $[0, \infty)$	Y-axis

d. $f(x) = x^{35}$ D: $(-\infty, \infty)$ R: $(-\infty, \infty)$ origin
because the exponent is odd.



b. $[0, 6]$ this is the interval
When the first dose was
taken and ending when the pain
reliever left the blood stream.

c. about 346 milligrams

55. $D: (-8, -4] \cup (-2, \infty)$

$R: (-6, \infty)$

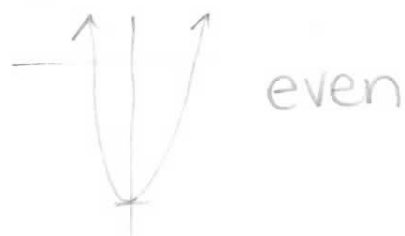
57. $D: (-\infty, -6] \cup (0, 4) \cup [7, \infty)$

$R: [-8, \infty)$

63. $g(n) = n^2 - 37$

$g(-n) = (-n)^2 - 37$

$= n^2 - 37 \checkmark$



67. $h(y) = y^5 - 17y^3 + 16y$



$h(-y) = (-y)^5 - 17(-y)^3 + 16(-y)$

$= -y^5 + 17y^3 - 16y \checkmark$

74.
$$\frac{(2x-1)(x+2)}{x(x-6)(x+2)}$$

The denominator cannot equal 0

$x=0$ $x=6$ are VA

and $x=-2$ is a hole

$\{x \mid x \neq -2, x \neq 0, x \neq 6, x \in \mathbb{R}\}$

or

$(-\infty, -2) \cup (-2, 0) \cup (0, 6) \cup (6, \infty)$