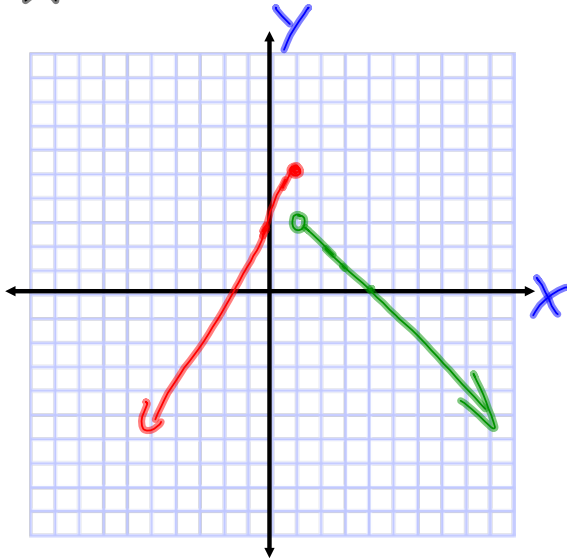


Day 2 on 1.3

I. Sketch the graph of the piecewise-defined function by hand.

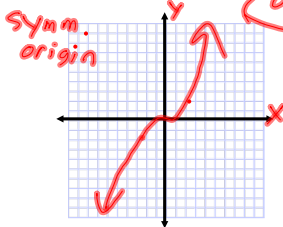
Ex 1) $f(x) = \begin{cases} 2x + 3, & x \leq 1 \\ -x + 4, & x > 1 \end{cases}$



II. Even and Odd Functions

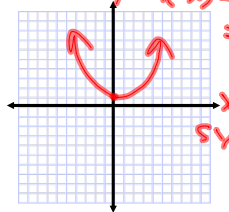
$f(-x) = f(x)$ (even)
 $f(-x) = -f(x)$ (odd)

Ex. 2) $g(x) = x^3 - x$
 $g(-x) = (-x)^3 - (-x) = -x^3 + x = -(x^3 - x) = -g(x)$
 odd



Ex. 3) $h(x) = x^2 + 1$

$h(-x) = (-x)^2 + 1 = x^2 + 1 = h(x)$
 even
 Symm y-axis



Ex. 4) $f(x) = x^3 - 1$

$f(-x) = (-x)^3 - 1 = -x^3 - 1$
 $\neq -f(x)$
 $\neq f(x)$

