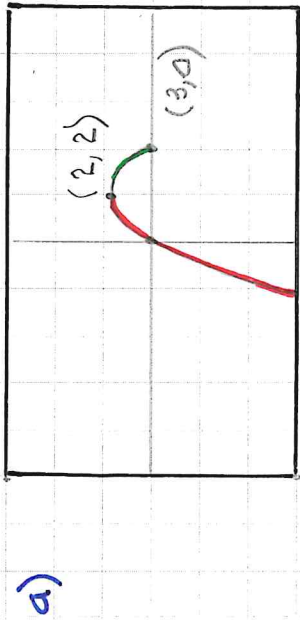


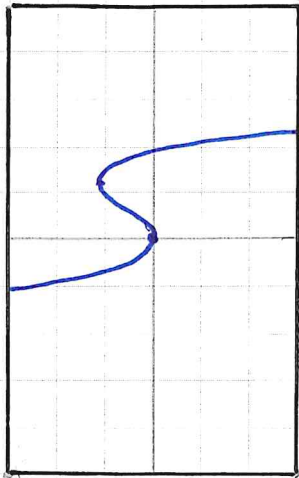
Math 27, HW #6 Selected Problems

Pg. 38, #32  $f(x) = \sqrt{3-x}$



b) Inc. on  $(-\infty, 2)$   
Dec. on  $(2, 3)$

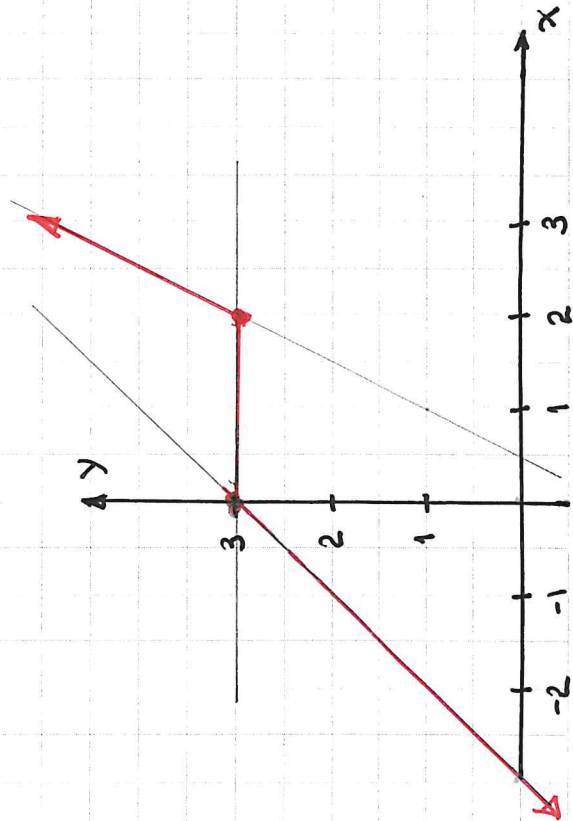
Pg. 38, #44  $f(x) = -x^3 + 3x^2$



R Min value = 0 when  $x = 0$  ~~(3, 0)~~  
R Max value = 4 when  $x = 2$

Pg. 38, #59

$$f(x) = \begin{cases} 4x+3, & x \leq 0 \\ 3, & 0 < x \leq 2 \\ 2x-1, & x > 2 \end{cases}$$



Pg. 40, #110

b) D: all real #'s ( $\mathbb{R}$ )

or  
 $(-\infty, \infty)$

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

c) I:  $(-1, 1)$

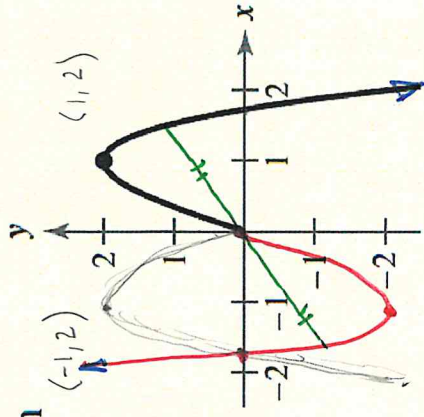
D:  $(-\infty, -1) \cup (1, \infty)$

d) RMin = -2 (at  $x = -1$ )

RMax = 2 (at  $x = 1$ )



**110. HOW DO YOU SEE IT?** Half of the graph of an odd function is shown.



- Sketch a complete graph of the function.
- Find the domain and range of the function.
- Identify the open intervals on which the function is increasing, decreasing, or constant.
- Find any relative minimum and relative maximum values of the function.