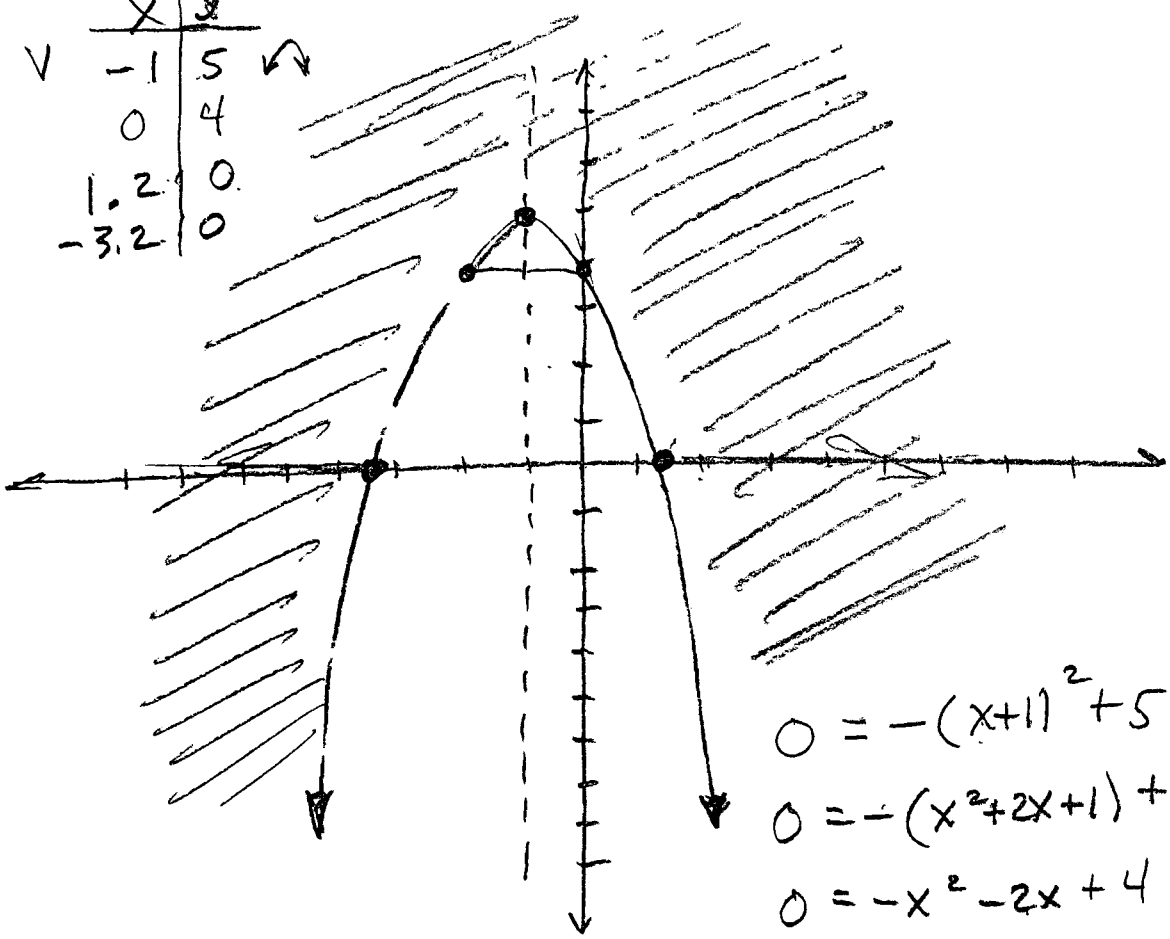
Algebra 2 TUES 4-30-13 Class Notes

Homework Review: Pg 114 # 2-4, 8-10

② $y > -(x+4)^2 + 5$

$$y = a(x-h)^2 + k$$

x	y
-1	5
0	4
1.2	0
-3.2	0



$0 = -(x+1)^2 + 5$

$0 = -(x^2+2x+1) + 5$

$0 = -x^2 - 2x + 4$

$x^2 + 2x - 4 = 0$

$a = 1$ $b^2 - 4ac$

$b = 2$ $(2)^2 - 4(1)(-4)$

$c = -4$ $4 + 16 = 20 = d$

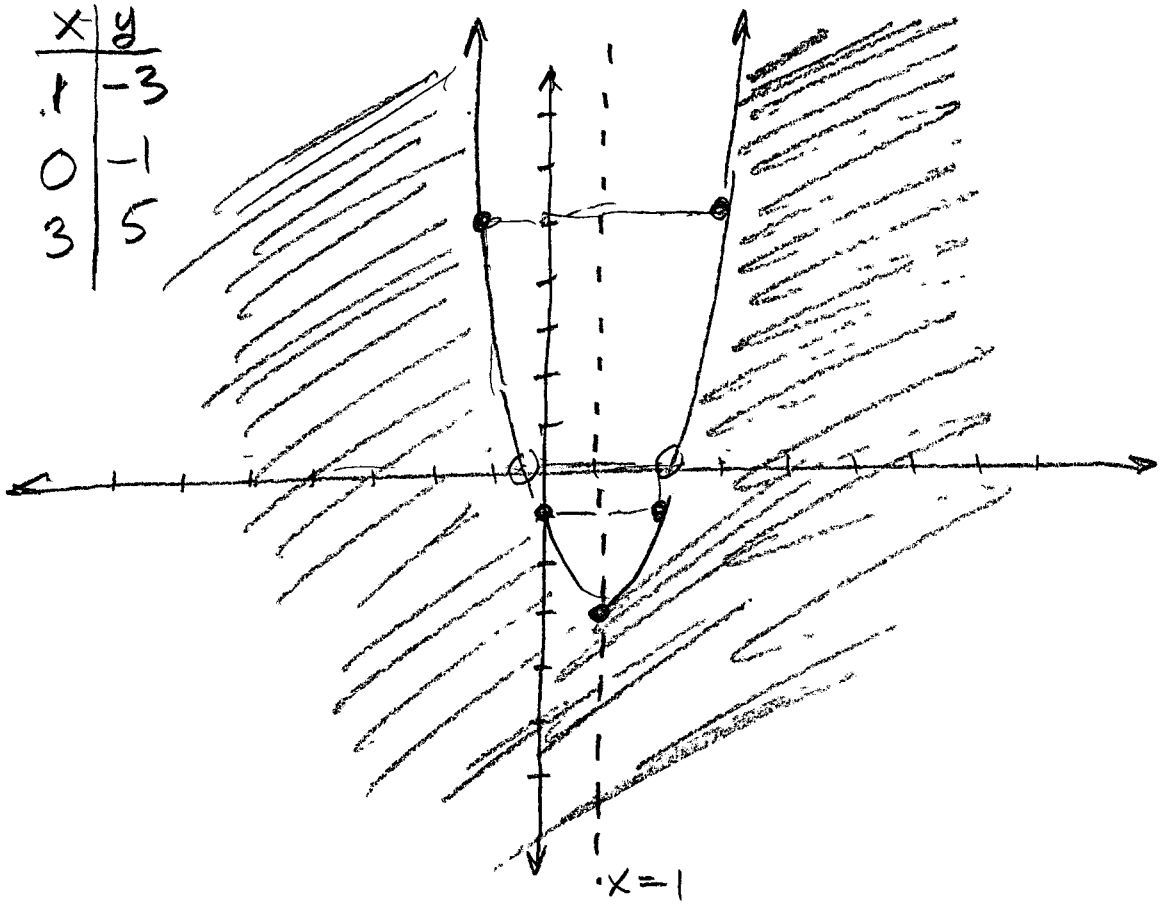
$$x = \frac{-2 \pm 2\sqrt{5}}{2} = -1 \pm \sqrt{5}$$

(3.) $y \leq 2x^2 - 4x - 1$

AOS $\Rightarrow x = \frac{-b}{2a} = \frac{4}{4} = 1 = x$

x	y
1	-3
0	-1
3	5

V



(8.) $x^2 + 10x + 1 \geq 12$

$\downarrow$

$x^2 + 10x - 11 \geq 0$

sum $\Rightarrow 10$

prod $\Rightarrow -11$

$-1 \quad +11$

$(x-1)(x+11) = 0 \qquad x = \{1, -11\}$

test $\rightarrow$ $x = -12$ true

$\rightarrow$ $x = 0$ FALSE

$\rightarrow$ $x = 2$ true

$x \leq -11$ OR $x \geq 1$

(10) $-2x^2+3x+12 > 10$

$-2x^2+3x+2 > 0$

sum $\Rightarrow 3$

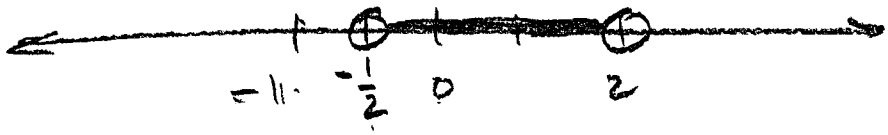
prod $= -4$

$-1 \quad +4$

$(-2x^2-1x)+(4x+2) > 0$

$-x(2x+1)+2(2x+1) > 0$

$(2x+1)(-x+2) > 0 \qquad x = \{-\frac{1}{2}, 2\}$



test	$x=0$	$x=3$
$x=-1$	true	FALSE
FALSE		

$$-\frac{1}{2} < x < 2$$