4/9 Algebra I - Downing

Bellwork: $x^2 + 15 = -8x$
$+8x \quad +8x$

Quiz

$x^2 + 8x + 15 = 0$

$(x^2 + 3x) + (5x + 15) = 0$

$x(x+3) + 5(x+3) = 0$

$(x+5)(x+3) = 0$

a) Solve by factoring

$x+5=0$ $\quad x+3=0$

$-5 \quad -5 \quad -3 \quad -3$

$x = -5$ $\quad x = -3$

$(-5, 0)$ $\quad (-3, 0)$

15	
1	15
3	5

b) Find aos $\quad x = \frac{-b}{2a}$

$x = -4$ $\quad x = \frac{-8}{2(1)} = \frac{-8}{2} = -4$

c) Find vertex $\quad (-4)^2 + 8(-4) + 15$

$(-4, -1)$ $\quad = -1$

Go over HW

Notes on graph paper

Go over PC

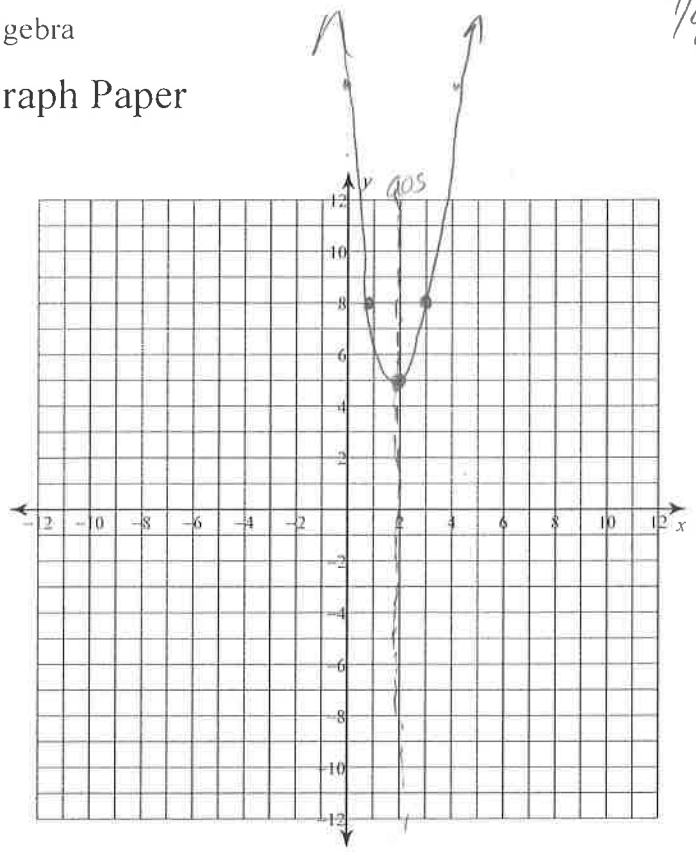
★ PC retake in class tomorrow

Algebra

4/9/19 Name Algebra I Notes Downing

Graph Paper

1)



$f(x) = 3(x-2)^2 + 5$

Vertex $(2, 5)$

aos: $x = 2$

x	y
0	17
1	8
2	5

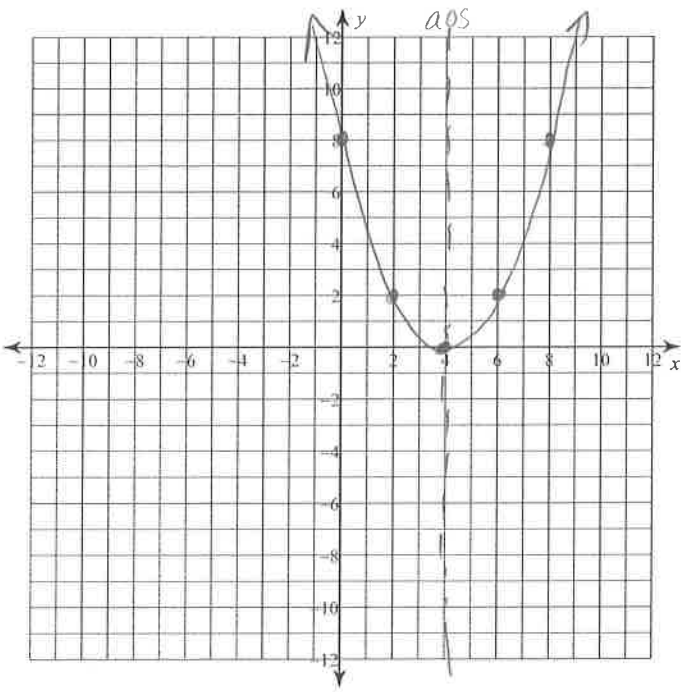
$y = 3(-2)^2 + 5$

$y = 17$

$y = 3(1-2)^2 + 5$

$y = 8$

2)



$f(x) = \frac{1}{2}(x-4)^2$

Vertex $(4, 0)$

aos: $x = 4$

x	y
0	8
2	2
4	0

$y = \frac{1}{2}(0-4)^2$

$y = 8$

$y = \frac{1}{2}(2-4)^2$

$y = 2$