

21

t	h
0	46
1	63
2	48
3	1

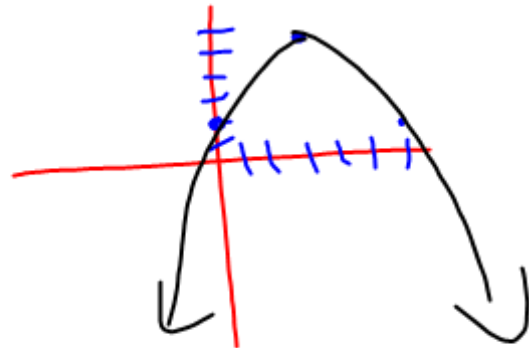
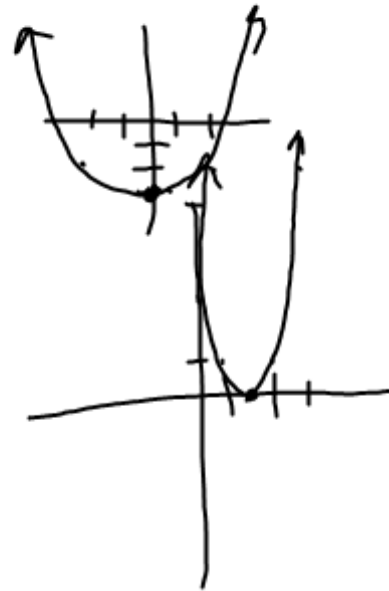
(0, 46)
(1, 63)
(2, 48)
(3, 1)

$$\textcircled{1} \quad y = \frac{1}{4}x^2 - 3$$

$$\textcircled{2} \quad y = 4x^2 - 12x + 9$$



$$\frac{12}{2(4)} = \frac{12}{8} = \frac{3}{2}$$

$\textcircled{3}$ Vertex: $(3, 6)$ and y -int 2



5.2 cont Quadratics

$$f(x) = ax^2 + bx + c$$

- if $a > 0$, (Positive) the parabola opens up. 
- if $a < 0$ (negative) the parabola faces down. 
- Axis of Symmetry A.O.S: $x = \frac{-b}{2a}$
- Vertex: $\left(\frac{-b}{2a}, f\left(\frac{-b}{2a}\right)\right)$
- Y-int: $(0, c)$ x y

5.3

Vertex form:

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

- $a > 1$ it is a stretch:
- $0 < a < 1$, is a shrink:
fraction



- h will shift the graph right or left
(horizontal)
- k will shift the graph
up or down
(vertically)

