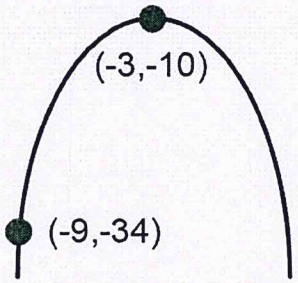
Bellwork Alg 2 Monday, October 1, 2018

1. Find the Equation of the LOS, coordinates of the Vertex, and the y-intercept for each.

a) $y = -4x^2 + 24x - 6$

b) $y = -8(x+3)^2 - 9$

2. Write the equation of this quadratic in Vertex Form.



EQ:

3. Factor completely. $6x^5 - 93x^3 - 48x$

Bellwork Alg 2 Monday, October 1, 2018 Answers

1. Find the Equation of the LOS, coordinates of the Vertex, and the y-intercept for each.

a) $y = -4x^2 + 24x - 6$

STANDARD FORM

LOS: $x = \frac{-24}{2(-4)} = \frac{-24}{-8} = 3$

Vertex: $(3, 30)$

y-int $= -6$

b) $y = -8(x+3)^2 - 9$

Vertex Form

Vertex $(-3, -9)$

LOS: $x = -3$

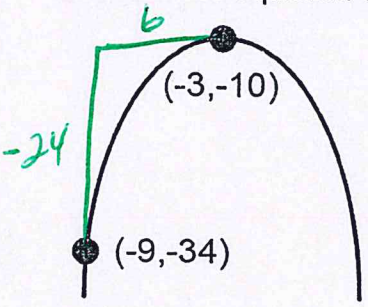
y-int $= -8(0+3)^2 - 9$

$= -8(9) - 9$

$= -72 - 9$

y-int $= -81$

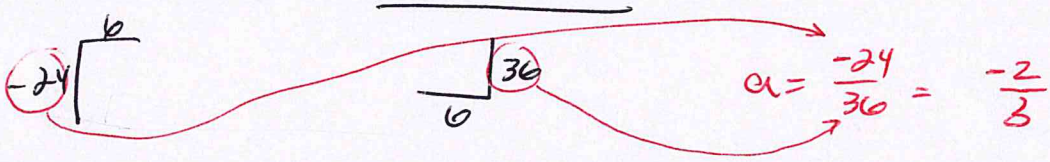
2. Write the equation of this quadratic in Vertex Form.



$y = a(x+3)^2 - 10 \Rightarrow y = -\frac{2}{3}(x+3)^2 - 10$

EQ:

THIS FUNCTION Parent Function



3. Factor completely. $6x^5 - 93x^3 - 48x$

$3x(2x^4 - 31x^2 - 16)$

$= 3x(2x^2+1)(x^2-16)$

$= 3x(2x^2+1)(x \pm 4)$