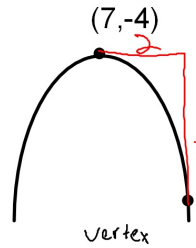
Write the equation of each parabola:

1.



$-12 = a(9-7)^2 - 4$

$-12 = 4a - 4$

$+4 \quad +4$

$y = a(x-7) - 4$

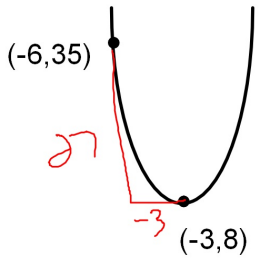
$-12 = a(9-7) - 4$

$y = -2(x-7)^2 - 4$

$\frac{-8}{4} = \frac{4a}{4}$

$-2 = a$

2.



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

$y = a(x+3)^2 + 8$

$35 = a(-6+3)^2 + 8$

$-8 \quad -8$

$35 = 9a + 8$

$-8 \quad -8$

$\frac{27}{a} = \frac{9a}{a}$ $a = 3$

3. State the coordinates of the vertex, the equation for the Line of Symmetry, and the y-intercept.

$y = -4(x + 6)^2 - 8$

Vertex: $(-6, -8)$

Los: $x = -6$

y-int: -152

$-4(0+6)^2 - 8$