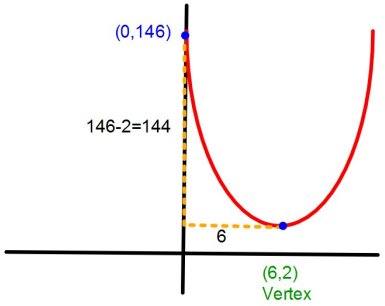
3. Vertex is (6, 2) and the y-intercept is 146



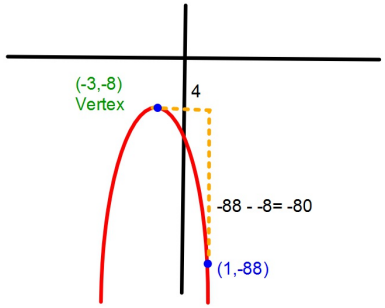
$y = 4(x-6)^2 + 2$

Parent Function: $6^2 = 36$, 6

Image: 144, 6

$a = \frac{\text{measure on image}}{\text{mearsure on original}} = \frac{144}{36} = 4$

1. Vertex is (-3, -8) and it passes through the point (1, -88)



$y = -5(x+3)^2 - 8$

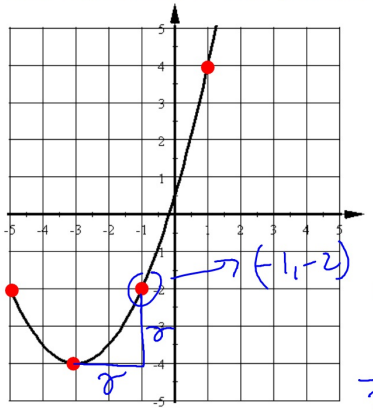
Parent Function: $4^2 = 16$, 4

Image: 4, -80

$a = \frac{\text{measure on image}}{\text{mearsure on original}} = \frac{-80}{16} = -5$

Write the equation of this parabola in Vertex Form.

2.



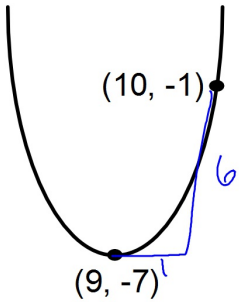
Vertex: (-3, -4)

$y = \frac{1}{2}(x+3)^2 - 4$

Parent Function: 2, 4 $\rightarrow a = \frac{2}{4} = \frac{1}{2}$

Write the equation of this parabola in Vertex Form.

3.



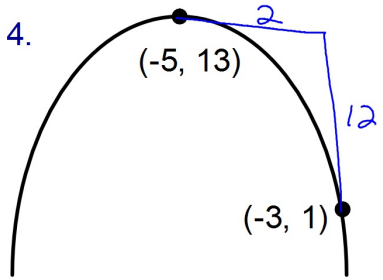
Parent Function: 1, 1

$y = 6(x-9)^2 - 7$

$a = \frac{6}{1}$

Write the equation of this parabola.

4.

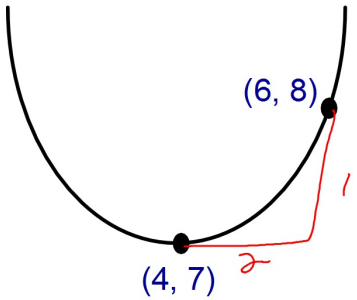


Parent Function

$y = -3(x+5)^2 + 13$

$a = \frac{12}{4} = 3$

5. Write the equation of this quadratic.

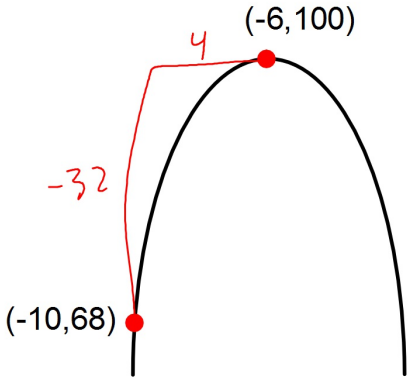


$y = \frac{1}{4}(x-4)^2 + 7$

Parent Function

$a = \frac{1}{4}$

6.



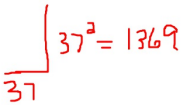
Parent Function

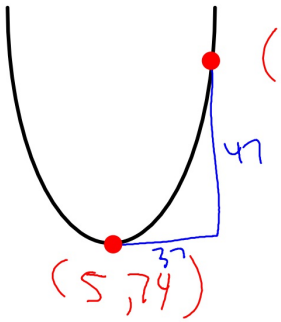
$y = -2(x+6)^2 + 100$

$a = \frac{-32}{16} = -2$

7.

Parent Function





$y = \frac{47}{1369}(x-5)^2 + 74$

$a = \frac{47}{1369}$