

**MATH 105 Exercise Set**

---

Sketch the graph of following quadratic functions. Please indicate vertex and  $x$ -intercepts,  $y$ -intercepts if any.

1.  $y = -x^2 + 1.$

2.  $y = (x - 4)^2 - 9$

3.  $y = -(x - 1)^2 + 4$

4.  $y = x^2 + 4x - 5$

5.  $y = 2x^2 + 2x + 3$

6.  $y + 1 = 2(x + 2)^2$

7.  $y = (x + 1)^2 - 3$

8.  $y = -x^2 + 2$

9.  $y = x^2 + 6x + 5$

10.  $y = -x^2 + 4x + 1$

11.  $y = -(x - 2)^2 + 1$

12.  $y = (x - 3)^2 - 4$

13.  $y = x^2 + 6x + 10$

14.  $y = x^2 - 7x + 75$

15.  $y = -x^2 + 11x - 33$