

Finding the Vertex of Quadratic Equations

Find the vertex of each quadratic

Example: $y = x^2 + 2x + 1$

$$a = 1$$

$$b = 2$$

$$c = 1$$

$$\left(\frac{-2}{2(1)}, (-1)^2 + 2(-1) + 1 \right) = (-1, 0)$$

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

2. $y = 8x^2 - 16x + 1$

3. $y = -3x^2 + 6x - 1$

4. $y = x^2 - 9$

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

6. $y = x^2$

7. $y = -10x^2$

8. $y = 2x^2 + 6x + 0$

9. $y = -4x^2 - 7$