

NAME: _____

Find the vertex of the parabola $y = 3x^2 - 3x + 4$. Give both the x-coordinate and the y-coordinate.

$$x = \frac{-b}{2a} = \frac{3}{6} = \frac{1}{2}$$

$$y = 3x^2 - 3x + 4$$

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

$$y = \frac{3}{4} - \frac{6}{4} + \frac{16}{4}$$

$$y = \frac{13}{4}$$

$$(x, y) = \left(\frac{1}{2}, \frac{13}{4}\right)$$