

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

$$\downarrow B^{-1}$$

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

$$\downarrow A^{-1}$$

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