

Find the Inverse

$$f(x) = x^2 + 4x + 3$$

$$f(x) = y$$

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

Switch x and y

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

Solve for 'y'

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

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

Complete the

$$\sqrt{x+1} = \sqrt{y^2 + 4y + 4}$$

Square
($\frac{1}{2}ab$)²

$$\sqrt{x+1} = \sqrt{(y+2)^2}$$

$$\sqrt{x+1} = y+2$$

$$\sqrt{x+1} - 2 = y$$

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