

## The Most Famous Perfect Square

Multiply  $x + \frac{b}{2a}$  times itself :

$$x + \frac{b}{2a}$$

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$$\begin{array}{r} \frac{b}{2a} x \qquad \frac{b^2}{4a^2} \\ x^2 \quad \frac{b}{2a} x \\ \hline x^2 + \frac{b}{a} x + \frac{b^2}{4a^2} \end{array}$$

$$\therefore \left(x + \frac{b}{2a}\right)^2 = x^2 + \frac{b}{a}x + \frac{b^2}{4a^2}$$

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