

Last time, ~~stated~~ looked at completing the square

old method

$$h(x) = x^2 - 4x + 3 \rightarrow \text{move constant over}$$

$$h(x) - 3 = x^2 - 4x \rightarrow \text{add spaces, \& think!}$$

(what would make the RHS a square?)

$$h(x) - 3 + \frac{4}{4} = x^2 - 4x + \frac{4}{4} \rightarrow \text{factor RHS}$$

$$h(x) + 1 = (x - 2)^2 \rightarrow \text{return constant to RHS}$$

$$h(x) = (x - 2)^2 - 1$$

new method

$$h(x) = (x^2 - 4x) + 3$$

$$h(x) ~~xxxx~~ = (x^2 - 4x + \frac{4}{4} - \frac{4}{4}) + 3$$

$$h(x) = (x - 2)^2 - 4 + 3$$

$$h(x) = (x - 2)^2 - 1$$