

* Factor

$$x^2 + 8x + 12 \leftarrow \text{trinomial}$$

$$\left(\begin{array}{c} ? \\ \end{array} \right) \left(\begin{array}{c} ? \\ \end{array} \right) \leftarrow \text{binomials}$$

Recall

$$(x+2)(x+3)$$

$$x^2 + 3x + 2x + 6$$

$$x^2 + 5x + 6 \leftarrow$$

trinomial

$$x^2 + 8x + 12 = (x \quad \quad)(x \quad \quad)$$

$$(2)(6) = 12 \rightarrow \text{factors of 12} \quad \text{Add}$$

$$\underline{2} + \underline{6} = \underline{8}$$

1 · 12	→	13
2 · 6	→	8
3 · 4	→	7

$$x^2 + 8x + 12 = (x+2)(x+6)$$

$$x^2 + 6x + 2x + 12$$

$$x^2 + 8x + 12$$