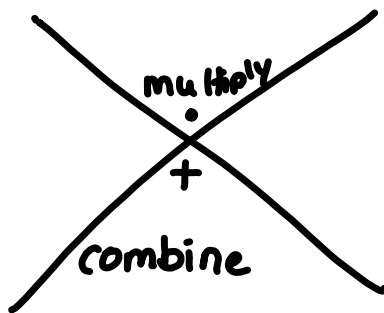


Notes #1 Factoring Trinomials $\{a=1\}$ 

When you are factoring
you are looking for a

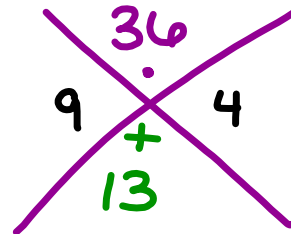
SPECIFIC set of #'s.

①

$$x^2 + 13x + 36$$

FACTOR.

$$(x + 9)(x + 4)$$



You could check your work.

$$(x+9)(x+4)$$

$$x^2 + 4x + 9x + 36$$

$$x^2 + 13x + 36 \checkmark$$

$$\textcircled{2} \quad x^2 + 15x + 50$$
$$(x + 5)(x + 10)$$

$$\begin{array}{ccc} & 50 & \\ 5 & \cdot & 10 \\ & + & \\ & 15 & \end{array}$$

$$\textcircled{3} \quad x^2 - 22x + 40$$
$$(x - 20)(x - 2)$$

$$\begin{array}{ccc} & \text{Pos.} & \\ & 40 & \\ -20 & \cdot & -2 \\ & - & \\ & -22 & \\ & \text{neg.} & \end{array}$$

both
neg

try these:

$$\textcircled{1} \quad x^2 + 15x + 54$$

$$(x+6)(x+9) \quad \begin{array}{r} 6 \\ \times \\ 9 \\ \hline 54 \\ 15 \end{array}$$

$$\textcircled{2} \quad x^2 + 11x + 28$$

$$(x+7)(x+4) \quad \begin{array}{r} 7 \\ \times \\ 4 \\ \hline 28 \\ 11 \end{array}$$

$$\textcircled{3} \quad x^2 - 12x + 32$$

$$(x-8)(x-4) \quad \begin{array}{r} 8 \\ \times \\ 4 \\ \hline 32 \\ -12 \end{array}$$

$$\textcircled{4} \quad x^2 - 10x + 24$$

$$(x-6)(x-4) \quad \begin{array}{r} 6 \\ \times \\ 4 \\ \hline 24 \\ -10 \end{array}$$

Be very very very careful with your signs!

$$\textcircled{1} \quad x^2 + 1x - 20$$

$$(x+5)(x-4)$$

$$\begin{array}{r} \text{diff. signs} \\ -20 \\ +5 \quad -4 \\ +1 \\ \text{bigger \# } \oplus \end{array}$$

$$\textcircled{2} \quad x^2 - 2x - 15$$

$$(x+3)(x-5)$$

$$\begin{array}{r} -15 \\ +3 \quad -5 \\ -2 \\ \text{bigger \# } \ominus \end{array}$$

try these:

$$\textcircled{3} \quad x^2 + x - 42$$

$$(x+7)(x-6)$$

$$\begin{array}{r} -42 \\ +7 \quad -6 \\ 1 \end{array}$$

$$\textcircled{4} \quad x^2 + 2x - 24$$

$$(x+6)(x-4)$$

$$\begin{array}{r} -24 \\ +6 \quad -4 \\ 2 \end{array}$$

$$\textcircled{5} \quad x^2 - 5x - 24$$

$$(x+3)(x-8)$$

$$\begin{array}{r} -24 \\ +3 \quad -8 \\ -5 \end{array}$$

$$\textcircled{6} \quad x^2 - 4x - 45$$

$$(x+5)(x-9)$$

$$\begin{array}{r} -45 \\ +5 \quad -9 \\ -4 \end{array}$$