



Factoring Trinomials ($ax^2 + bx + c$) by Trial and Error (Geometric Model)

Video Notes

[Video Link](#)

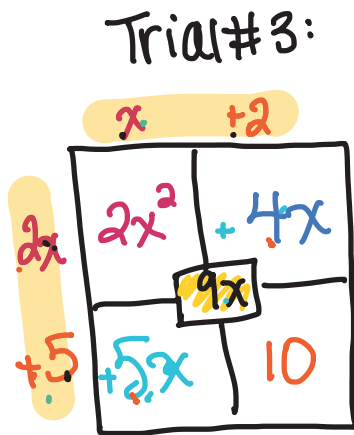
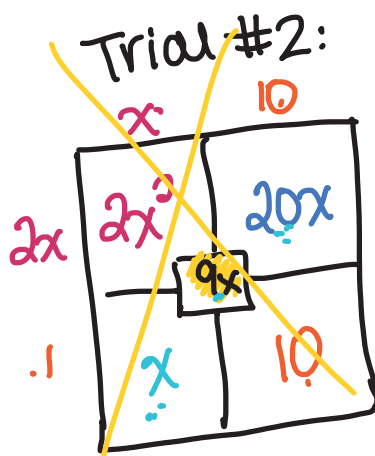
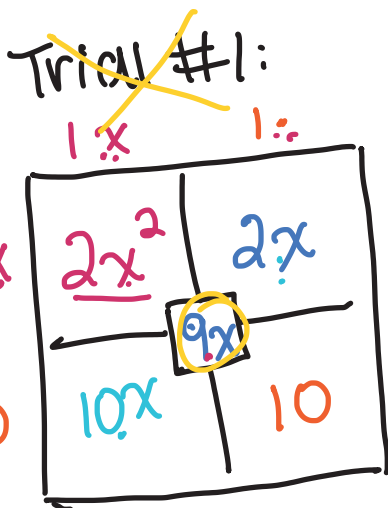
Factoring Trinomials ($ax^2 + bx + c$) by Trial and Error (Geometric Model)

What background knowledge will I need?

- How to multiply a binomial by a binomial (Geometric Model)

Factor:
 $2x^2 + 9x + 10$

$$\begin{array}{r} 2 \\ 2 \overline{) 10} \\ \underline{4} \\ 6 \end{array} \quad \begin{array}{r} 10 \\ 2 \overline{) 10} \\ \underline{20} \\ 0 \end{array}$$



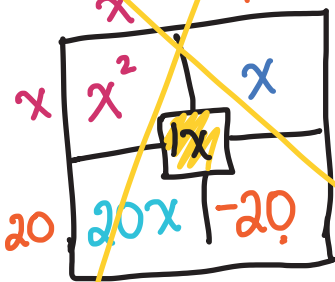
$$(2x+5)(x+2)$$

Factor:

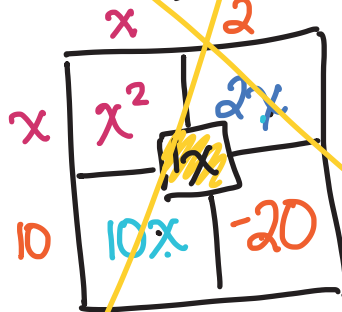
$$x^2 + x - 20$$

$$\begin{array}{r}
 20 \\
 \hline
 +20 \\
 2 \quad 10 \\
 4 \quad 5
 \end{array}$$

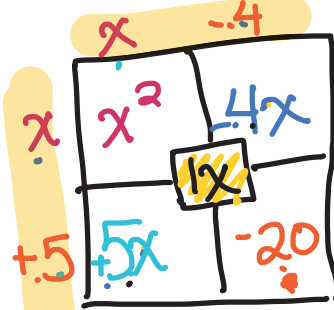
~~Trial #1:~~



~~Trial #2:~~



Trial #3:



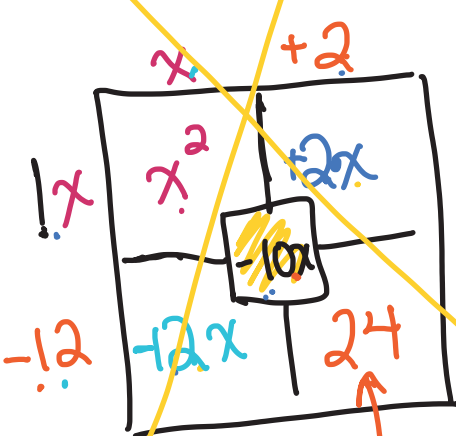
$$(x+5)(x-4)$$

Factor:

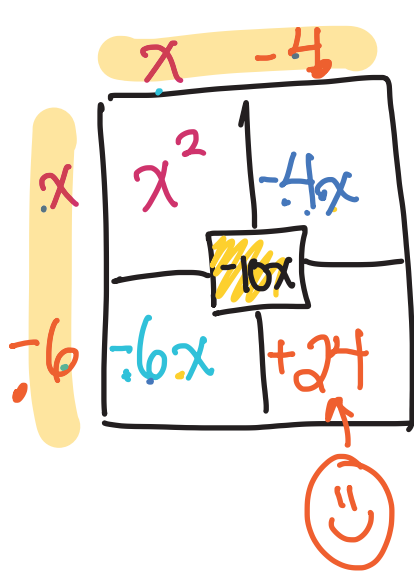
$$x^2 - 10x + 24$$

$$\begin{array}{r}
 24 \\
 \hline
 +24 \\
 -2 \quad 12 \\
 3 \quad 8 \\
 4 \quad 6
 \end{array}$$

~~Trial #1:~~



Trial #2:



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

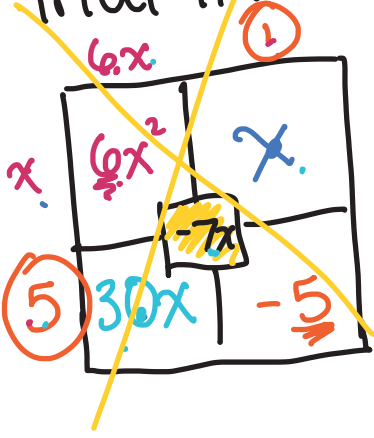
Factor:

$6x^2 - 7x - 5$

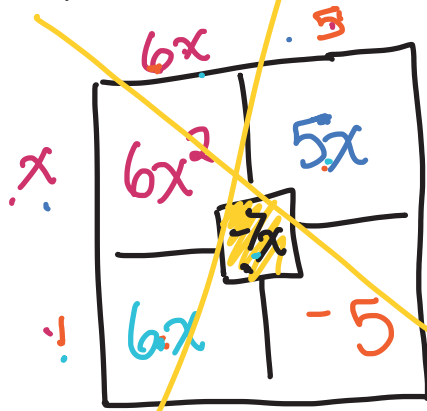
$$\begin{array}{r} 6 \\ +6 \\ \hline 2 \end{array} \begin{array}{r} 3 \\ +3 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 5 \\ +5 \\ \hline 1 \end{array} \begin{array}{r} 5 \\ +5 \\ \hline 5 \end{array}$$

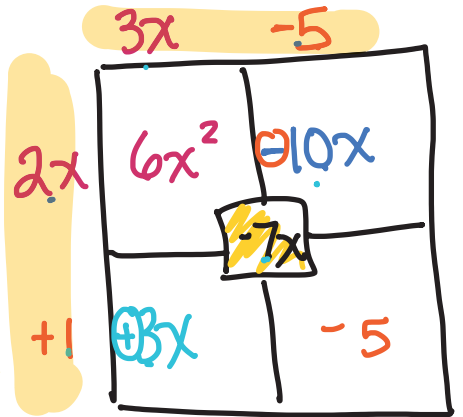
~~Trial #1:~~



~~Trial #2:~~



Trial #3:



$(2x + 1)(3x - 5)$