Double Distributive

$$(2x+4)(x-5)$$

① $(2x+4)x + (2x+4)(-5)$

$2x^2+4x-10x-20$

$2x^2-6x-20$

② $2x(x-5)+4(x-5)$

$2x^2-10x+4x-20$

$2x^2-6x-20$

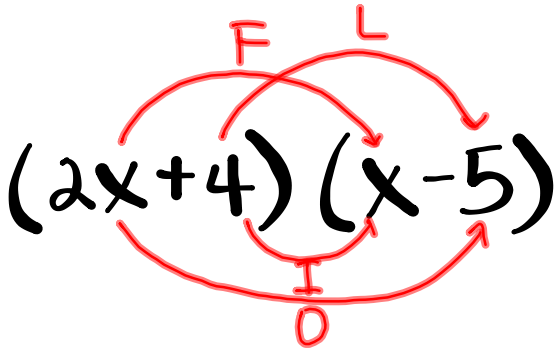
F.O.I.L.

F - first

O - outside

I - inside

L - Last



$2x^2 - 10x + 4x - 20$

$2x^2 - 6x - 20$

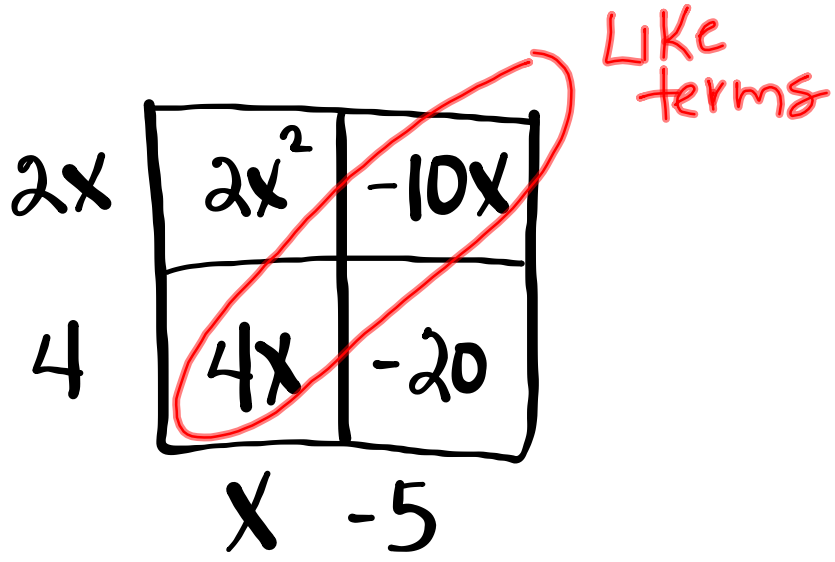
Vertical

$$(2x+4)(x-5)$$

$$\begin{array}{r} 2x+4 \\ x-5 \\ \hline -10x-20 \\ 2x^2+4x \\ \hline 2x^2-6x-20 \end{array}$$

Box

$$(2x+4)(x-5)$$



$$2x^2-10x+4x-20$$

$$2x^2-6x-20$$