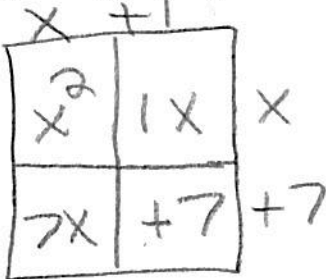


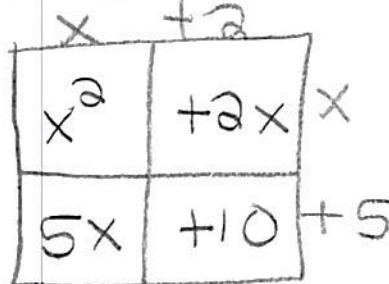
Do Now

A. Simplify: $(x+1)(x+7)$



$$x^2 + 8x + 7$$

B. Simplify: $(x+2)(x+5)$



$$x^2 + 7x + 10$$

Aim: TRINOMIAL FACTORING WITH LEADING COEFFICIENT IS ONE

Trinomial	Factors of the last term	Check
1. $x^2 + 8x + 7$ $(x+7)(x+1)$	1, 7	 $x^2 + 8x + 7 \checkmark$
2. $x^2 + 7x + 10$ $(x+5)(x+2)$	1, 10 $\boxed{2, 5}$	 $x^2 + 7x + 10$

Steps to find all the factors of a number on the calculator:

1. $y = \#/x$ (last term)
2. Press 2nd graph to look at the table of factors

Steps for Easy Trinomial Factoring

- 1) "Double bubble", with an x in each ().
- 2) The first sign drops down in the 1st ().
- 3) Multiply the given signs to determine the 2nd sign.
- 4) Find factors of the last # that add or subtract to the middle #.
- 5) The bigger # goes first!
- 6) Check by Tabular Method or Double Distributing

$$3. x^2 + 11x + 24$$

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

$$\begin{array}{r} 1, 24 \\ 2, 12 \\ \boxed{3, 8} \\ 4, 6 \end{array}$$

$$4. x^2 + 10x + 21$$

$$(x + 7)(x + 3)$$

$$\begin{array}{r} 1, 21 \\ \boxed{3, 7} \end{array}$$

$$5. x^2 + 13x + 36$$

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

$$\begin{array}{r} 1, 36 \\ 2, 18 \\ 3, 12 \\ \boxed{4, 9} \\ 6, 6 \end{array}$$

$$6. x^2 - 8x + 7$$

$$(x - 7)(x - 1)$$

$$1, 7$$

$$7. x^2 - 6x + 8$$

$$(x - 4)(x - 2)$$

$$\begin{array}{r} 1, 8 \\ \boxed{2, 4} \end{array}$$

8. $x^2 - 14x + 48$ $(x - 8)(x - 6)$	$1, 48$ $2, 24$ $3, 16$ $4, 12$ $6, 8$	
9. $x^2 - 20x + 36$ $(x - 18)(x - 2)$	$1, 36$ $2, 18$ $3, 12$ $4, 9$	
10. $x^2 - 16x + 64$ $(x - 8)(x - 8)$	$1, 64$ $2, 32$ $4, 16$ $8, 8$	

Mixed Practice:

Remember to always look for G.C.F factoring 1st!!!!

11. $y^2 - 36$ D.O.T.S. $(y + 6)(y - 6)$	12. $\frac{6y}{6} + \frac{24}{6}$ G.C.F. $6(y + 4)$
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13. $y^2 - 3y - 28$

Easy Tri.

$$(y - 7)(y + 4)$$

$$\begin{array}{r} 1, 28 \\ 2, 14 \\ \hline 4, 7 \end{array}$$

14. $y^2 - 121$

D.O.T.S

$$(y - 11)(y + 11)$$

15. $\frac{15x + 60y}{15}$

G.C.F

$$15(x + 4y)$$

16. $y^2 + 13y - 30$

Easy Tri

$$(y + 15)(y - 2)$$

$$\begin{array}{r} 30 \\ 1, 30 \\ \hline 2, 15 \\ 3, 10 \\ 5, 6 \end{array}$$