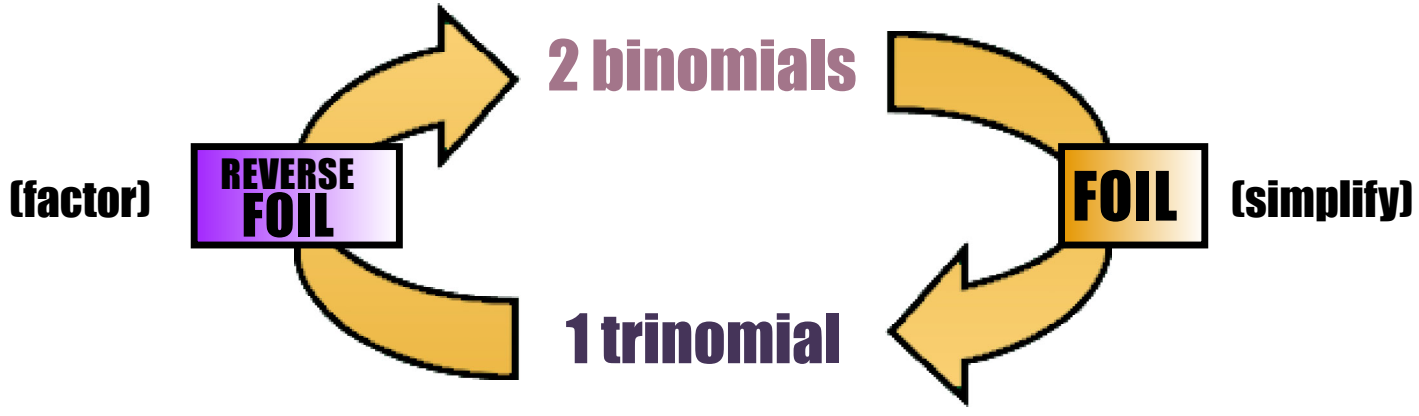
PRINCIPLES - LESSON 12D
INTRODUCTION TO REVERSE FOIL

Recall: The FOIL Method for multiplying two binomials

ex1) $(n+5)(n+5)$

F O I L

$= n^2 + 5n + 5n + 25 = n^2 + 10n + 25$



FACTORING TRINOMIALS BY REVERSE FOIL

Factor.

ex2) $n^2 + 10n + 25$ (F, OI, L) ⇐ **PERFECT SQUARE TRINOMIAL**
(they result from a single binomial squared)

$= (n+5)(n+5)$ OR $(n+5)^2$

REVERSE FOIL

1. Force FIRST
2. Force SIGNS
3. Force LAST
4. Check OI

ex3) $36v^2 - 12v + 1$ (F, OI, L)

$= (6v-1)(6v-1)$ OR $(6v-1)^2$

FACTORING TRINOMIALS BY REVERSE FOIL

Factor by Reverse FOIL.

ex4) $49q^4 + 28q^2 + 4$ (F: $49q^4$, OI: $28q^2$, L: 4)

$= (7q^2+2)(7q^2+2)$ OR $(7q^2+2)^2$

REVERSE FOIL

1. Force FIRST
2. Force SIGNS
3. Force LAST
4. Check OI

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ex5) $81m^2 - 72m + 16$ (F: $81m^2$, OI: $-72m$, L: 16)

$= (9m-4)(9m-4)$ OR $(9m-4)^2$

FACTORING METHODS

Factoring Method	Can Be Used On
GCF	polynomials of all sizes
Difference of Two Squares	binomials only
Reverse FOIL	trinomials only