



Factoring Trinomials with More Than One Variable

Video Notes

[Video Link](#)

Factoring Trinomials with More Than One Variable

What background knowledge will I need?

- How to factor a trinomial by:
 - Trial and Error Using unFOIL, **or**
 - Trial and Error Using the Geometric Model, **or**
 - Decomposition

Factor: $6x^2 + 5xy - 25y^2$ O, I unFOIL

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

$F \rightarrow 6x^2$

$$\begin{array}{r} 6 \\ 2 \overline{) 12} \\ \underline{12} \\ 0 \end{array}$$

$2 \mid 3$

O, I

$\cdot 5xy$

$L \rightarrow -25y^2$

$$\begin{array}{r} 25 \\ 5 \overline{) 25} \\ \underline{25} \\ 0 \end{array}$$

~~Trial #1:~~
 $(1x \quad 1y)(6x \quad 25y)$
 $6xy \quad 25xy$

~~Trial #2:~~
 $(1x \quad 25y)(6x \quad y)$
 $150xy \quad xy$

~~Trial #3:~~
 $(x \quad 5y)(6x \quad 5y)$
 $30xy \quad 5xy$

Trial #4:
 $(2x + 5y)(3x - 5y)$
 $15xy \quad -10xy$

