

5.3 More Factoring Trinomials

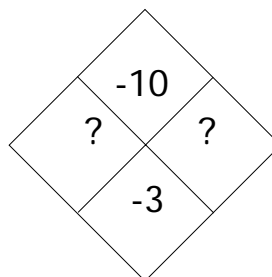
- Need To Know
 - Review diamond puzzle
 - Methods of factoring Trinomials
 1. Guess, check and revise
 2. The Grouping Method
(see the book for this technique)



Recall Diamond Puzzle

Factor:

$$x^2 - 3x - 10$$





Factoring Trinomials w/ $a \neq 1$

Factor:

$$2a^2 + 7a + 6$$

Standard Form:

$$ax^2 + bx + c$$

Guesses – All possible options:

$$(2a + 6)(a + 1) \quad (2a + 1)(a + 6) \quad (2a + 3)(a + 2) \quad (2a + 2)(a + 3)$$

$$(2a - 6)(a - 1) \quad (2a - 1)(a - 6) \quad (2a - 3)(a - 2) \quad (2a - 2)(a - 3)$$

$$(2a + 6)(a - 1) \quad (2a + 1)(a - 6) \quad (2a + 3)(a - 2) \quad (2a + 2)(a - 3)$$

$$(2a - 6)(a + 1) \quad (2a - 1)(a + 6) \quad (2a - 3)(a + 2) \quad (2a - 2)(a + 3)$$



Factoring Trinomials w/ $a \neq 1$

Factor:

$$4x^2 - x - 5$$



Factoring Trinomials w/ $a \neq 1$

Factor:

$$30y^2 + 5y - 5$$



Factoring Trinomials w/ $a \neq 1$

Factor:

$$15t^2 - 2t - 8$$



Factoring Trinomials w/ $a \neq 1$

Factor:

$$10p^2 + 5pq - 30q^2$$



5.3 Conclusion

Ways to Factor Polynomial

1. By Greatest Common Factor (GCF)
2. By Grouping
3. Factor Trinomials
 - Guess, check and revise
 - The Group Method (see book)

end