

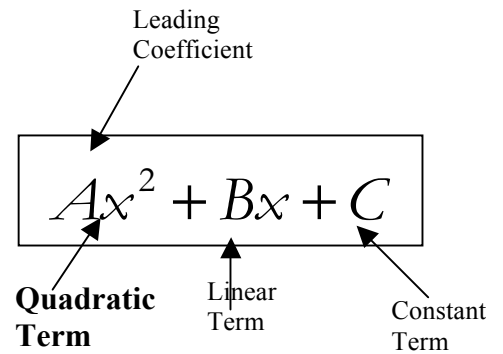
NOTES: FACTORING “HARD” TRINOMIALS

DAY 13

Textbook Chapter 4.4

“Hard” Trinomials:

The leading coefficient is _____.



1. Decide your signs for the parentheses.
2. **Multiply** $A \cdot C$
3. Find 2 #'s that multiply to equal $A \cdot C$ and add to the linear term (B).
4. Rewrite Bx as a sum of the *two factors*. There will be **4 terms**.
5. Factor by grouping:
 - Group the first two terms and the last two terms
 - Factor the *GCF* out of each group {the parentheses should match}
 - Use distributive property to write as two binomials

6. Check your answer - FOIL!!!

Example 1	Example 2
Factor: $2x^2 + 7x + 6$	Factor: $12x^2 - 26xy - 10y^2$
Step 1:	Factor out GCF:
Step 2:	Step 1:
Step 3:	Step 2:
Step 4:	Step 3:
Step 5:	Step 4:
Step 6:	Step 5:
	Step 6:

NOTES: SOLVING BY FACTORING

1. $6x^2 - 11x - 2 = 0$

2. $4x^2 + 20x + 25 = 0$

3. $18x^2 + 12x + 2 = 0$

4. $36x^2 - 12m + 1 = 0$

5. $4x^2 - 25x = 2x - 35$

6. $4x^2 - 26x + 42 = 0$

PRACTICE: FACTORING

DAY 13

Factor the trinomial, if possible. If it cannot be factored, write "prime."

1. $3t^2 + 16t + 5$

2. $6x^2 - 9x - 6$

3. $3x^2 - 17x - 6$

4. $64x^2 - 9$

5. $18x^2 + 12x$

6. $4a^2 - 26ab - 42b^2$

7. $8x^2 + 54x + 70$

8. $12x^2 - 22x - 20$

PRACTICE: SOLVING QUADRATIC EQUATIONS

DAY 13

9. $x^2 + 8x + 15 = 0$

10. $a^2 + 7a = 18$

11. $2x^2 + 18x + 5 = 0$

12. $5x^2 + 20x = 0$

13. $6b^2 - 11b = 2$

14. $3c^2 - 37c + 44 = 0$