

# Factoring Review

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## Factoring Methods:

### 1. Remove Greatest Common Factor

*Factor:*

a.  $28a^3b^3 + 42a^2b^4 - 14ab^5$

b.  $4x^2(x+2) - 3(x+2)$

### 2. Trinomials with a=1

• *Standard form of quadratic expression:*  $ax^2 + bx + c$

• *If a=1, then*  $x^2 + bx + c = (x + m)(x + n)$

$$mn = c \quad m + n = b$$

*Factor:*

a.  $x^2 + 14x + 45$

b.  $x^2 - 7x + 10$

c.  $x^2 + 6x - 27$

d.  $x^2 - 6x - 27$

3. Using the “ac” Method

- Find two factors of the product **ac**
- Re-write expression with 4 terms using the factors as coefficients of  $x$

*Factor:*

a.  $3x^2 + 10x + 8$

b.  $6x^2 - 17x + 5$

4. Special Cases

- *Difference of 2 Squares:*

*Factor:* a.  $121x^2 - 49$

b.  $36x^4 - 9x^2y^6$

- *Perfect Square Trinomial:*

*Factor:* a.  $4x^2 + 12x + 9$

b.  $25x^2 - 60xy + 36y^2$