

# Rules for Factoring Polynomials

GCF

(Factor out and write the remaining factor in one set of parentheses)

Binomial

Difference of Two Squares  
 $(a^2 - b^2)$

Factor as  
 $(a + b)(a - b)$

Trinomial

Perfect Square Trinomial  
 $(a^2 + 2ab + b^2)$   
or  
 $(a^2 - 2ab + b^2)$

Factor as  
 $(a + b)^2$  or  $(a - b)^2$

Use Magic X  
 $x^2 + bx + c$   
Use Bottoms Up  
 $ax^2 + bx + c$

Four Terms

Factor by Grouping

