

Attack Factoring



Greatest Common Factor

$$3x^3 - 6x$$

$$3x(x^2 - 2)$$

Difference of Perfect Squares

$$x^2 - 49$$

$$(x - 7)(x + 7)$$



Always look
for GCF first

Binomial
Perfect Squares
Subtraction



Trinomials

$$x^2 - 3x - 4 \quad 2x^2 - 11x + 12$$

$$(x - 4)(x + 1) \quad (2x - 3)(x - 4)$$

$$6x^2 + 13x - 5$$

$$(3x - 1)(2x + 5)$$

Grouping

$$x^3 - 4x^2 + 3x - 12$$

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

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



3 Terms
Sum and Product Rule



4 Terms
Grouped

Factor Completely

$$4x^2 - 36$$

$$4(x^2 - 9)$$

$$4(x - 3)(x + 3)$$

$$x^4 - 1$$

$$(x^2 - 1)(x^2 + 1)$$

$$(x + 1)(x - 1)(x^2 + 1)$$

$$2x^2 - 2x - 12$$

$$2(x^2 - x - 6)$$

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

$$x^5 - 16x$$

$$x(x^4 - 16)$$

$$x(x^2 - 4)(x^2 + 4)$$

$$x(x + 2)(x - 2)(x^2 + 4)$$

CHECK BY
DISTRIBUTING !!!!

