# Factoring Trinomials when a=1

$n^2 + 4n - 12$	$n^2 - 10n + 9$
$b^2 + 16b + 64$	$m^2 + m - 90$
$n^2 - 11n + 10$	$b^2 + 8b + 7$

# Factoring Trinomials when a>1

$3p^2-2p-5$	$2n^2+3n-9$
$2n^2 + 5n + 2$	$4n^2 - 17n + 4$
$5x^2 - 18x + 9$	$3n^2 - 8n + 4$

# **Factoring by Grouping**

$8r^3 - 64r^2 + r - 8$	$4v^3 - 12v^2 - 5v + 15$
$24p^3 + 15p^2 - 56p - 35$	$6v^3 - 16v^2 + 21v - 56$
$12x^3 + 2x^2 - 30x - 5$	$12p^3 - 21p^2 + 28p - 49$

## **Greatest Common Factor (Polynomials)**

$-3a^2b+6a^3b^2$	$-32n^9 + 32n^6 + 40n^5$
$27x^2y^5 - 72x^3y^2$	$20x^8y^2z^2 + 15x^5y^2z + 35x^3y^3z$
$-40x^{11} - 20x^{12} + 50x^{13} - 50x^{14}$	$7ab - 35a^2b$

## **Difference of Squares**

$p^2 - 36$	$p^2 - 144$
$n^2 - 169$	$4x^2 - 25$
$9a^2 - 4$	$n^2 - 16$

### **Combinations**

$5v^2 - 30v + 40$	$5n^2 + 10n + 20$
$4v^2-4v-8$	$2k^2 + 22k + 60$
$9k^2 + 66k + 21$	$15n^2 - 27n - 6$