

**Pg. A23 0.3B – Polynomials and Factoring**

**Ex 1:**

Factor out the common factor.

**(a)**  $5y - 30$

**(b)**  $4x^3 - 6x^2 + 12x$

**Ex 2:**

Find the greatest common factor such that the remaining factors have only integer coefficients.

$\frac{1}{3}y + 5$

**Ex 3:**

Completely factor the difference of two squares.

$\frac{4}{25}y^2 - 64$

**Ex 4:**

Factor the perfect square trinomial.

$9x^2 - 12x + 4$

**Ex 5:**

Factor the sum or difference of cubes.

$$27x^3 + 8$$

**Ex 6:**

Factor the trinomial.

$$x^2 - 13x + 42$$

**Ex 7:**

Factor by grouping.

$$5x^3 - 10x^2 + 3x - 6$$

**Ex 8:**

Factor the trinomial by grouping.

$$2x^2 + 9x + 9$$