

A.3 Polynomials and Factoring

Quick Review of adding, subtracting, and multiplying polynomials.

$$(5x^3 - 7x^2 - 3) + (x^3 + 2x^2 - x + 8)$$

$$(7x^4 - x^2 - 4x + 2) - (3x^4 - 4x^2 + 3x)$$

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

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

$$(x + y - 2)(x + y + 2)$$

Factoring:

GCF

$$6x^3 - 4x$$

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

$$-4x^2 + 12x - 16$$

$$(x + 1)(x^2) - (x + 1)(9)$$

Difference of Squares

$$100 - 4y^2$$

$$16x^4 - 81$$

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

$$(x - 1)^2 - 9y^4$$

Sum/Difference of Cubes

$$x^3 - 27$$

$$64x^3 - 1$$

$$y^3 + 8$$

$$3x^3 + 192$$

Factoring by grouping.

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

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

Section A.3 Polynomials and Factoring

Pages A33 & A34 (back of book)

#13, 15, 17, 25, 29, 35, 37-44, 47, 51-54, 58, 62,
64, 66, 68, 73-82