Concepts of Algebra 2 Notes   **Section 5-3: Solving Polynomial Equations**

*Objectives:

Got It? **1.** What are the real or imaginary solutions of each equation?

a. $(x^2 - 1)(x^2 + 4) = 0$ b. $x^5 + 4x^3 = 5x^4 - 2x^3$

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*Polynomial Factoring Techniques	
*Techniques	*Examples
*Factoring out the GCF	
*Quadratic Trinomials	
*Perfect Square Trinomials	
*Difference of Squares	
*Factoring by Grouping	
*Sum or Difference of Cubes	

Sum of Cubes: $$a^3 + b^3 = (a+b)(a^2 - ab + b^2)$$

Got It? **2.** What are the real or imaginary solutions of each polynomial equation?

    a. $x^4 = 16$ **b.** $x^3 = 8x - 2x^2$ **c.** $x(x^2 + 8) = 8(x + 1)$

Inclass: p. 301 #14, 18, 24
Homework: p. 301 #11-23(odd)
Interactmath: #10, 11, 15, 17, 20