

Mr. Northcutt's Math Classes Class Presentation

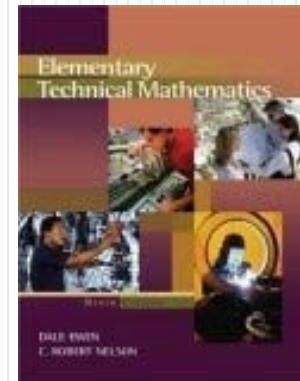
May 7, 2009 (154)



Math 1



Math 2



Applied Math



Math 1 – Daily Summary

- **Announcements**

- **QUIZ: Sections 10.1 thru 10.4 on MONDAY**
- **Not here on Monday - Get help BEFORE I leave.**

- **Class Objectives – What you should learn today?**

- **REVIEW: Factoring Polynomials (Quadratics)**
 - Common Factors
 - Product of Binomials
- Solving Quadratic Equations by Factoring and using the Zero Product Property

- **Assignment**

- **Worksheet: Solving Quadratic Equations by Factoring**




Review: Factoring Polynomials

1. Common Factors (ALWAYS check this 1st!)

$$3x^2 - 6x - 9 = 3(x^2 - 2x - 3)$$

2. Product of Binomials

$$\begin{aligned} 3x^2 - 6x - 9 &= 3(x^2 - 2x - 3) \\ &= 3(x - 3)(x + 1) \end{aligned}$$


Product of Binomials



Examples: Factoring

- **Factor** (1- Common Factors?...2 - Product of Binomials?):

$$4x^2 + 12x + 8$$

$$6x^3 + 3x^2 - 9x$$



Zero Product Property

- Consider solving the equation:

$$a \cdot b = 0$$

- What must be true for either ***a*** or ***b*** in order to solve?

- How about the equation:

$$a \cdot b \cdot c = 0$$



Solving Quadratic Equations

- We can use Factoring and the Zero Product Property to Solve some Quadratic Equations.

$$3x^2 - 6x - 9 = 0$$

$$3(x^2 - 2x - 3) = 0 \quad (\text{Factor: } \textit{Common Factor})$$

$$3(x - 3)(x + 1) = 0 \quad (\text{Factor: } \textit{Product of Binomials})$$

Zero
Product
Property

$$\begin{array}{ccc} \swarrow & & \searrow \\ x - 3 = 0 & & x + 1 = 0 \\ x = 3 & & x = -1 \end{array}$$

Answer →

$$x = \{-1, 3\}$$

Examples: Solving Quadratic Eqns.



- **Factor** (1- Common Factors?...2 - Product of Binomials?):

$$4x^2 + 12x + 8 = 0$$

$$6x^3 + 3x^2 - 9x = 0$$

Math 2 – Daily Summary



- **Announcements**

- **TEST on Chapter 13 - Trigonometry on MONDAY (next week)**
 - **Not here on Monday - Get help BEFORE I leave.**

- **Class Objectives – What you should learn today?**

- Applications of Trigonometry = “Word Problems”
 - Pythagorean Theorem (from earlier)
 - Right Angle Trigonometry (Sin, Cos, Tan, Sin^{-1} , Cos^{-1} , Tan^{-1})
 - Law of Sines
 - Law of Cosines

- **Assignment**

- **Lesson 13.5: 1-7**

Applied Math – Daily Summary



- **Announcements**

- Will begin Quadratic Equations on Tuesday...Algebra Review until then.

- **Class Objectives – What you should learn today?**

- Algebra Review: Equations of Lines

- **Assignment**

- **Worksheet:** Solving Equations (Word Problems)