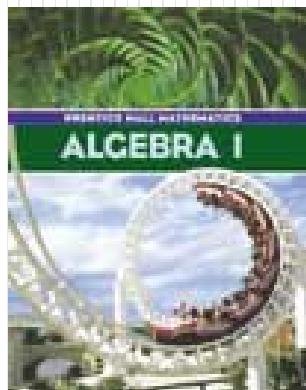
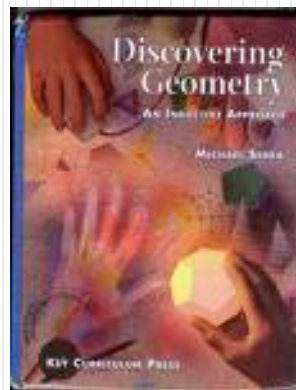


Mr. Northcutt's Math Classes Class Presentation

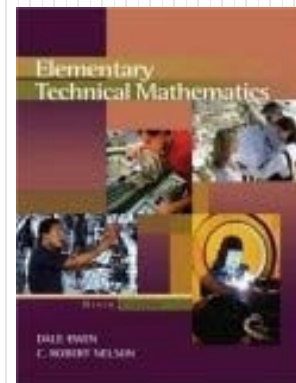
November 18, 2008 (52)



Math 1



Math 2



Applied Math



Math 1 – Daily Summary

- **Announcements**

- Mr. Northcutt will be back on Thursday

- **Class Objectives**

- Percent of Change

- **Assignment**

- **Lesson 4-4:** 1-12, 30-40, 42-43



NOTE: Computer Use
Only After All Work
Verified by Substitute!

Do Work on Separate Paper & Hand In!

1. Write Problem
2. Show Each Step
3. Check Answer – Show Work for Check too!



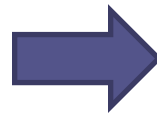
Percent of Change

- **REVIEW:** A percent is a ratio that compares a number to 100.

$$\frac{n}{100} = \frac{\text{part}}{\text{whole}}$$

- Percent Change is the ratio of the amount change to the original amount expressed as a percent.

$$\frac{\text{amount of change}}{\text{original amount}} = \frac{n}{100}$$



Amount of change > 0
Percent of Increase

Amount of change < 0
Percent of Decrease



Example

- The price of a iPod decreased from \$249.99 to \$189.99. Find the percent change.

Amount of Change

$$\begin{array}{r} 249.99 \\ -189.99 \\ \hline 60.00 \end{array}$$

Percent Change
(Decrease)



$$\frac{60.00}{249.99}$$

Original Amount

249.99

$$0.24 = \frac{24}{100} = 24\%$$



HW Solution 4.4 – Check Answers

1: 50% increase

2: $33 \frac{1}{3}\%$ decrease

3: 25% increase

4: 20% increase

5: $33 \frac{1}{3}\%$ increase

6: 25% decrease

7: 25% increase

8: 20% increase

9: 84.4% increase

10: 71.1% increase

11: 60.7% decrease

12: 14.4% increase

39: 2%

40: 19%

42: No; 16% increase but a
14% decrease

43: No; increase to \$70.40
but decrease to \$63.36



Math 2 – Daily Summary

- **Announcements**

- Mr. Northcutt will be back on Thursday

- **Class Objectives**

- Algebra Review
 - Operations with Polynomials (Multiplication & Division)

- **Assignment**

- Polynomials Worksheet

NOTE: Computer Use
Only After All Work
Verified by Substitute!

**Use Separate Sheet of Paper
& Hand In!**

1. Write Problem
2. Show Each Step
3. Check Answer!



Multiplying Monomials

- Recall that a monomial is a polynomial with 1 term.

$$2x \quad 4xy^2 \quad 3xy \quad 6$$

- When you multiply monomials you multiply numbers and variables (simplify using exponents).

$$\begin{aligned} 4xy^2 \cdot 3xy &= (4 \cdot 3)(x \cdot x)(y^2 \cdot y) \\ &= 12x^2y^3 \end{aligned}$$



Multiplying Polynomials

- Multiplying polynomials is really just the repeated application of the Distributive Property and combining Like Terms.

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



Multiplying Polynomials

- You can multiply polynomials using the same technique you use to multiply two numbers...

$$\begin{array}{r}
 243 \\
 \times 27 \\
 \hline
 1701 \\
 486 \\
 \hline
 6561
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{ccc}
 x^2 & -x & +3 \\
 \times & x & +2 \\
 \hline
 2x^2 & -2x & +6 \\
 x^3 & -x^2 & +3x \\
 \hline
 x^3 & +x^2 & +x & +6
 \end{array}
 \end{array}$$



Dividing Polynomials

- You can divide polynomials using the same technique you use to divide numbers...

$$\begin{array}{r} \overline{)3624} \\ - 36 \\ \hline 24 \\ - 24 \\ \hline 0 \end{array}$$



$$\begin{array}{r} \overline{)2x^2 - x - 3} \\ - 2x^2 + 2x \\ \hline - 3x - 3 \\ - -3x - 3 \\ \hline 0 \end{array}$$

\times $2x - 3$



Applied Math – Daily Summary

- **Announcements**

- Mr. Northcutt will be back on Thursday

- **Class Objectives**

- Writing Equations and Problem Solving
 - Many struggled on the quiz with these problems!

- **Assignment**

- Worksheet: Equations and Problem Solving

NOTE: Computer Use
Only After All Work
Verified by Substitute!

Use Separate Sheet of
Paper & Hand In!

1. Write Problem
2. Show Each Step
3. Check Answer!



Steps for Problem Solving

- **You might find the following process useful:**

1. Read the problem carefully (at least twice)
2. Draw a diagram to help visualize the problem.
3. Define a Variable(s) for the unknown quantity(s).
4. Write an Equation(s) to express relationships in the problem using the variable(s).
5. Solve the equation for the variable(s).
6. Check your answer – in the equation and using common sense.



Example – Expect All Steps on HW

- Distribute \$2500 among Frank, Bill, and Larry so that Frank receives \$100 more than Bill and Larry receives half of what Bill receives.

Step 1: Define Variables

F = Amount Frank Receives

B = Amount Bill Receives

L = Amount Larry Receives

Step 2: Define Equations

$$F + B + L = 2500 \quad (\text{Total Amount})$$

$$F = B + 100 \quad (\text{Frank's Amount})$$

$$L = B / 2 \quad (\text{Larry's Amount})$$

Step 3: Solve Equations

$$B + 100 + B + \frac{B}{2} = 2500$$

$$\frac{5B}{2} + 100 = 2500$$

$$\frac{5B}{2} = 2400$$

$$5B = 4800$$

$$B = \$960$$

$$F = \$1060$$

$$L = \$480$$