Algebra 2

Students will be able to evaluate and simplify algebraic expressions.
Students will be able to solve equations.

- Warm Up Discussion
- Notes on 1.2 & 1.3 Expressions and Solving
- Classwork/Homework

Warm Up   *Everyday you will be given a warm up.

The warm up will either be displayed here or you will be directed to work on an SAT question from the SAT Warm-Up Packet.

Evaluate the expression if a = 3, b = -2 and c = -4.

1. $c^2 + bc - 4a$

2. $3a^2 - 6bc + (15-a)$

Things to remember when evaluating or simplifying...

1.2 Expressions   - PEMDAS

- Only combine like terms

- What do we do with exponents?

Example: Simplify by combining like terms then evaluate...

$3x + 2y^2 + 7y - 9x + 4z^3 - 2z + 3y^2$

x = 5
y = -3
z = 2

Function Notation

f(x) pronounced f of x, is just another fancy name for a function. Instead of saying y = 3x + 1, we say f(x) = 3x + 1.

This way we can evaluation using function notation.

If $f(a) = 5a^2 - 20$, what is f(3)?

What would f(-2) be?

1.3 Solving Equations Review

On your own...

1 Solve each equation. Check your answers.
  a. $8z + 12 = 5z - 21$ **b.** $2t - 3 = 9 - 4t$

Solve $3x - 7(2x - 13) = 3(-2x + 9)$.

In your groups, work on solving each of these at least two different ways.

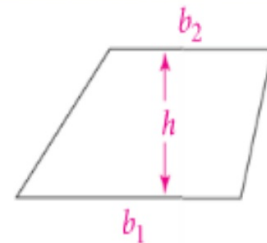$$\frac{x}{3} + 4 = 12$$

$$\frac{3x - 6}{4} = 10$$

$$-2(n - 5) = 14$$

$$2(2x + 4) = 8x + 32$$

In Group...
Solving for Variables

Geometry The formula for the area of a trapezoid is $A = \frac{1}{2}h(b_1 + b_2)$. Solve the formula for h.

In Group...   Solving for Variables

Solve $\frac{x}{a} + 1 = \frac{x}{b}$ for x. Find any restrictions on a and b.

<u>Restrictions!</u>

On your own...

20. $I = prt$, for r **21.** $S = 2\pi rh$, for r **22.** $V = \pi r^2 h$, for h

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Classwork/Homework

Pg. 21 #1-19 (odds), 23-26, 31, 32, 37 -39.