Rebecca Moses

Final Project: Coordinating Seminar

**Content/Grade Level**

6th grade

**Goal:**

Students will be able to solve one-variable equations by using cut out cubes and rectangles.

**Objective:**

Given a one-variable equation, the student will use cut out cubes and rectangles to figure out what x is equal to.

**Standards NYS Common Core Standards:**

Expression & Equations 6EE

Reason about and solve one-variable equations and inequalities.

6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or depending on the purpose at hand, nay number in a specified set.

**Materials:**

Squares (2 different colors)

Rectangles (2 different colors)

Pencils

X

1

-1

-X

Blue Square = 1 Blue Rectangle = x

Red Square = -1 Red Rectangle = -x

**Procedure:**

1. Represent the equation using the paper strips.
2. Bring like terms to either side (x’s with the x’s and constants with the constants).
3. Solve the equation.
4. By removing the strip (dividing) you get what x is equal to.
5. Check by solving the equation (plug in what you find out for x).

**Example:**

X+3=3x+1

x

X

=

 +

x

x

1

1

1

 +

1

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x

1

1

1

 =

-X

x

x

-1

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x

1

1

=

x

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x

1

=

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Given the equation 7n-2=5n+6, how would you set up the equation using the squares and rectangles?

Solve the equation 5+2x=3x+1?