**Valentine One Step Equations**

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**Materials:**

1. **1 step Equation Foldables**
2. **SmartBoard and Document Camera**
3. **Markers**
4. **Red and pink construction paper.**

**TEKS: 6.10(A) Model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts**

**Engage:**

1. **Show them video about how many professions require math:** [**http://www.youtube.com/watch?v=eTGp6VokP5E&sns=em**](http://www.youtube.com/watch?v=eTGp6VokP5E&sns=em)
2. **Today we are going to show you how there is math in Valentine’s day.**

**Explore: Model, Write Equations and Solve**



1. **Open Powerpoint, One Step Valentine Equations**
2. **Go through opening slides on the goal and important reminders when solving equations.**
3. **Pose Problem One (Cookie Crazy) to the students.**
4. **Ask students to talk with a neighbor about how they would solve this problem.**
5. **Circulate around the room.**
6. **Choose three pairs that found different ways of solving the problem to come up to the board and show their solution.**
7. **Show students how they can draw a picture (as above) to model the problem.**

**Questions:**

* **How did you solve it?**
* **How do I know when I am finished?**
* **What does it mean to isolate the variable?**

 **Additional Questions:**

* **What makes an equation algebraic?**
* **What is a variable?**
* **What is the first step in solving an algebraic equation?**
* **What is the difference between an expression and an equation?**

**Explain: (Foldable)** [**http://ispeakmath.org/tag/foldable/**](http://ispeakmath.org/tag/foldable/)

1. **Use the Heel Dilemna problem as the example for the student foldable**
* **Define the variable- What am I solving for? (the height of the heel of the ideal shoe)**
* **What is the variable in this problem?**
* **Write the equation 67 inches + x = 72 inches**
* **What is my first step to solve this equation? subtract 67 from both sides**
* **How do I know which operation to use? opposite operation**
* **Solve and check x=5, 67 + 5 = 72 inches.**
* **How do I check to see if my answer is correct?**
* **Write your answer in a sentence. You should wear a 5 inch heel.**
* **How do I write my answer into a sentence that makes sense?**

**Elaborate:**

1. **Students will use the steps provided in their foldable to write an original Valentine word problem.**
2. **If students get stuck on ideas, teachers can suggest: cards, flowers, candy, school dance as possible topics for their word problem.**
3. **Students will be given red or pink paper to write their completed word problem, equation, and solution.**
4. **Ask students to come up with situations that use math in real life**

**Evaluate:**

* **Algebra Meltdown: https://www.mangahigh.com/en-us/games/algebrameltdown**

