**Module 2: Solving Equations and Inequalities**

**Lesson 2: Solving Equations with Justifications**

**Objectives:**

* I know the properties of real numbers and properties of equality
* I understand how to use the properties of real numbers and properties of equality to justify steps in solving equations
* I can use the properties of real numbers to solve equations

**Agenda:**

* White board
* Group work
* Challenge yourself

**Vocabulary:**

* Associative, Commutative, Distributive, Equivalent expressions, Multiplication property of equality, addition property of equality.

**Focus Questions:**

1. How can we use the properties of real numbers to create equivalent expressions?
2. How can we use the multiplication and addition properties of equality to solve equations?

**Web Support:**

* <http://mathbitsnotebook.com/Algebra1/LinearEquations/LEjustify.html>
* <https://www.youtube.com/watch?v=-GA0Wn9Tq2E>

**Web Practice**

* <http://mathbitsnotebook.com/Algebra1/LinearEquations/LEJustifyPractice.html>

**Homework:** Finish the packet

**Vocabulary: Distributive**

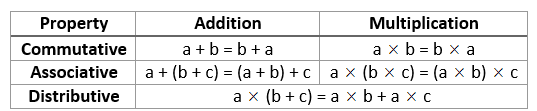
**Commutative**

**Associative:**

**Warm up**

1. **Solve the following Equations and check you answer.**

**A)**  B)

**Name that property**  


1. **Identify the property used in the following equations:**

|  |  |
| --- | --- |
| **a.** | **b.** |
| **c.** | **d.** |
| **e.** | f. |

1. Give a property of real numbers (associative, commutative, or distributive) or a property of equality (addition or multiplication) that justifies each step in the following equation:



1. (REGENTS) A method for solving is shown below. Identify the property used to obtain each of the two indicated steps.



Continued Practice: Solve the following equations:

1. b.

D.

e. . F.

G.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_

Homework 2-1: Solving Equations with properties.

List the steps for solving these equations. Solve and check your answers.

|  |  |
| --- | --- |
|  |  |
| C. | D. |

