**Module 2: Solving Equations**

**Lesson 1: Solving Equations:**

**Objectives:**

* **Students can solve one and two step equations.**
* **Students can solve algebraic equations using the distributive property.**
* **Students can solve algebraic rational equations**
* **Students can use algebraic equations to solve real-life applications**



**Agenda:**

* **Use your skills**
* **Use all your skills together**
* **Challenge yourself**

**Vocabulary:**

* **Equation, Like terms, solution, distributive property, ratio, cross multiplying**

**Focus Questions:**

1. **How can I check if my solution for the equation is correct?**
2. **How can I use equations in real-life applications?**

**Web Support:**

<http://mathbitsnotebook.com/Algebra1/LinearEquations/LEsolveequations.html>

<http://mathbitsnotebook.com/Algebra1/RationalEquations/REequations.html>

**Web Practice:**

<http://mathbitsnotebook.com/Algebra1/LinearEquations/LEPracEquations.html>

<http://mathbitsnotebook.com/Algebra1/RationalEquations/REequationpractice.html>

**Homework: Homework 2-1**

**Do now**

1. The length of a rectangular room is 7 less than three times the width, *w*, of the room. Which expression represents the area of the room?

a. 3*w* – 4 b. 3*w* – 7 c. 3*w*2– 4*w d.* 3*w*2– 7*w*

1. The length of a rectangular window is 5 feet more than its width, *w*.  The perimeter of the window is 36 square feet.
2. **Write an equation** which could be used to find the dimensions of the window?
3. **Provide an example on how to square a binomial:**

|  |  |
| --- | --- |
| definition | **An equation states that numerical expressions or algebraic expressions are equal. Linear equations are equations of degree one, where the variable's exponent is one** |

[**https://www.youtube.com/watch?v=9PqygqYo0ck**](https://www.youtube.com/watch?v=9PqygqYo0ck)

**Solve each of the following equations: PAUSE THE VIDEO.**

|  |  |
| --- | --- |
|  | 1.
 |
| 1.

  |  |

**Using Distributive property:**

[**https://www.youtube.com/watch?v=caCQG3-i9aA**](https://www.youtube.com/watch?v=caCQG3-i9aA)

|  |  |
| --- | --- |
|  | 1.
 |
| 1.

  | 1.
 |
| 1. https://www.castlelearning.com/Review/Courses/integratedalgebra/q176-002.GIF?v=20010719114918

­­­­­­­­­ |  **Fractional form:**  |
| 1.
 | 1.
 |

**Use All Your Skills Together**

|  |  |
| --- | --- |
| 1.
 | 2.   |
| 1.

  | 4.  |
|  |  |
| 7.  | 8.  |

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

**Homework 2-1 Solving Equations.**

1) Solve the equation for x. 

2) Solve the equation for x. 

**Solve each equation for its given variable.**

3)  4) 

 5)  6) 

|  |
| --- |
|  |