Math 3 2.3 Imaginary & Complex Numbers Unit 2 Day 3

*SWBAT simplify expression with imaginary numbers.*

Tape Foldable Here!

Imaginary Numbers: For any positive b, 

**Example 1:** Simplify the following:

1. 
2. 
3. 
4. 

**Example 2:** Simplify. **You Try!** Simplify 

**Complex Numbers:** What is a complex number? **Example 3:** Name the real and imaginary part of

a + b*i* 

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ part is ALWAYS first!

**Adding and Subtracting Complex Numbers:** Only combine like terms. Double check with your calculator.

1. Simplify 
2. Simplify 

Let x and y be real numbers. What are the values of x and y?

1. 
2. 

**Multiplying Complex Numbers:** Make sure to FOIL. Double check with your calculator.

1. Simplify 
2. Simplify 

**Dividing Complex Numbers:**  Imaginary numbers may NEVER be in the denominator. To simplify, multiply the complex numbers by the conjugate (just like with radicals).

1. Simplify
2. Simplify