SECONDARY MATH 2

**CORE STANDARDS**

II.1.N.CN.1

II.1.N.CN.2

LESSON

**1-5**

OBJECTIVE **1. SWBAT add, subtract, & multiply complex numbers.**

 Real Numbers Rational Numbers

Complex Numbers Irrational Numbers

 Imaginary Numbers

NOTES

Complex Numbers include all real numbers and all imaginary numbers and can be written in the form: 

Imaginary Numbers are complex numbers where . The number *i* is a special number defined as follows:

 

To add & subtract complex numbers, follow the same ‘like terms’ rules we’ve used before.

 e.g. 

To multiply complex numbers, proceed as usual, but remember that  and therefore becomes real.

 e.g. 

EXAMPLES Add, subtract, or multiply as indicated.

**1.**  **2.** 

**3.**  **4.** 

**5.** Simplify each of the following **6.** For each complex number in the form ,

 identify the values of *a* and *b*.

I.  I. 

 II.  II. 23*i*

 III.  III. –87

PRACTICE **1-5** NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 [SHOW YOUR WORK] [WRITE ALL ANSWERS IN SIMPLIFIED FORM]

Add, subtract, or multiply as indicated.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

Simplify each of the following; identify the values of *a* and *b* in the standard form *a* + *bi*.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

Add or subtract as indicated. REVIEW 1-4

1. 
2. 

Simplify. Write your answers in terms of positive exponents. REVIEW 1-2

1. 
2. 
3. For the following expression, what are the values of *a* and *b* in the standard form *a* + *bi*: 