

Name \_\_\_\_\_

Date \_\_\_\_\_

## Addition, Subtraction, and Multiplication of Complex Numbers –

### Guided Lesson Explanation

#### Explanation#1

Start adding two brackets

$$(5 + 17i) + (10 + 15i)$$

$$(5+10) + (17+15)i$$

$$15 + 32i$$

#### Explanation#2

Solve two brackets by subtraction

$$(9 - 21i) - (15 - 5i)$$

$$9 - 21i - 15 + 5i$$

$$(9 - 15) + (-21 + 5)i$$

$$-6 - 16i$$

#### Explanation#3

Now we will solve it

$$4i(10 + 12i)$$

$$4i(10) + 4i(12i)$$

$$40i + 48i^2$$

$$40i + 48(-1)$$

$$40i - 48$$

$$-48 + 40i$$

