

## Complex Numbers

### How to multiply complex Binomials

**Warm Up** → Multiply:

1)  $5 * 3i$

2)  $(k+2)(k+3)$ : \_\_\_\_\_

2)  $(x + 4)(x + 5)$ : \_\_\_\_\_

**Class Practice:**

Multiply:

1)  $(5 + 2i)(4 + 3i)$

2)  $(3 + 5i)(7 + 8i)$

3)  $(7 + 4i)(1 + 2i)$

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**Working on your own**

4)  $(7 - 4i)(1 + 2i)$

5)  $(7 - 4i)(1 - 2i)$

6)  $(4i - 7)(1 - 2i)$

7)  $(11i - 7)(12 - 21i)$

8)  $(-11i + 8)(-12 + 26i)$

9)  $(-13i + 2)(-5 + 26i)$

10)  $(-5i - 2)(-5 - 6i)$

11)  $(-3i - 7)(-11 - 2i)$

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**Complex Conjugates:**

12)  $(5 - i)(5 + i)$

13)  $(3 - 2i)(3 + 2i)$

$$14) (6 - 8i)(6 + 8i)$$

$$15) (11 - 8i)(6 + 8i)$$

**16. Think-Pair-Share:**

Look carefully at questions 12-15. Explain why none of the answers to 12-15 have any “i” term? Explain the reason why:

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This kind of complex number binomial pairs are called ‘complex conjugates’.

17. Write your own pair of complex conjugates (binomial pairs like those in questions 12-15)

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