

Operate on Complex Numbers

Add, Subtract, Multiply, or Divide Complex numbers.

[Link to section in textbook](#)

We end this lesson by looking at properties of the Complex numbers. Watch [this video](#) to review the properties of Complex numbers.

Adding and subtracting Complex numbers requires you to add/subtract like terms. As students are proficient with combining like terms, the homework will focus on multiplying and dividing Complex numbers. For each, simplify the expression into the form $a + bi$.

Question 1 $(4 + 2i)(10 - 8i)$

- i

Hint: Make sure you distribute and reduce i^2 .

Question 2 $(-9 + 7i)(-4 - 5i)$

+ i

Question 3 $\frac{-10 + 9i}{4 - 2i}$

Hint: The goal when dividing by a Complex number is to remove the Complex number from the denominator. Is there a word for the number we can multiply by to remove the Complex part of a number?

+ i

Question 4 $\frac{-4 + 3i}{7 - 6i}$

+ i

Learning outcomes: Understand the different sets of numbers along with the properties of these sets.

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