

College Algebra

Date:

Items Needed: Book, Smartboard file “Complex Numbers”, Note Packet-Section 9-6

Objective: The students will be able to add, subtract, multiply complex numbers and they will be able to use complex conjugates to find the quotient of two numbers.

PA Common Core Standard:

Lesson:

- What does a negative under the radical actually represent?
- References something that we can't find an answer for.
- Actually it references a whole different class of numbers. (Imaginary Numbers)
- Discuss what “i” form actually is.
- Convert the first 4 radicals into “i” form.

- To add or subtract imaginary numbers you must first write the numbers in i-form and then combine like terms. To multiply imaginary numbers you do not have to have like numbers under the radical, just like roots.
- Do the next 4 examples.

- Define the complex number system.
- Do the next example page.

- Discuss what a conjugate is and the use for it by taking a close look at their products.
- Work through the conjugate and product page.
- Work on simplifying fractions by finding the conjugate and multiplying the top and bottom of the fraction by that conjugate.

Assignment: Have students do 2-16 (even), p. 484.
Have students do 19-33, (odd), p. 485.
Have students do 48-62, (even), p. 487.
Have students do 63-70, 71-79, (odd), p. 488.

Evaluation: (Could be from any one/several of the following)

Responses from classroom questions
Results of classroom sample problems
Homework responses
Check answer with Calculator
End of the section exam

Enrichment: