

Algebra II

Date:

Items Needed: Student Journal, Dynamic Classroom-Smart Document, Practice Worksheet Packets

Objective: The students will be able to define and use the imaginary unit i . They will also be able to add, subtract, multiply, and find complex solutions and zeros.

PA Common Core: HSN-CN.A.1, HSN-CN.A.2, HSN-CN.C.7, HSA-REI.B.4b

Lesson:

- Pick a few of the problems from the slide and have the students see if they can remember how to simplify the expression.
- See if the students can remember how to find the vertex and axis of symmetry of an equation in standard form using the next slide.
- Ask the question, does anyone know what complex numbers are?
- Using the next slide go over what complex numbers are and discuss the two main parts of a complex number.
- Using their student journals, do exploration 1, p. 50, together.
- Using their student journals, do exploration 2, p. 51, together.
- Go over the imaginary unit slide and do the next two examples.
- Do the three examples on the next slide.
- Have the students do the examples on the next slide.
- If more practice is needed, do 1-6, p.53 in student journal.
- Using the next slide, talk about what like terms are when it comes to imaginary numbers.
- Do the next 3 examples together.
- If more practice is needed, 9-12, p. 54 can be used from the student journal.
- Do the electrical circuit problem.
- Discuss imaginary(i) multiplication rules.
- Work through the multiplication examples on the next two slides.
- Discuss that finding zero(s) of an equation and setting an equation equal to zero are essentially doing the same process to find the value of x .
- Work through the next 3 examples with the students.
- Have the students do some of the examples on the next slide.
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Assignment: Have students do 5-12, p. 108.

Have students do 21-29(o), 33, 34, p. 108.

Have students do 37-44, p. 109.

Have students do 49-59(o), p. 109.

Have students do 69-74, p. 110.

Enrichment:

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

Responses from classroom questions

Classroom sample problems

Homework responses

Calculator solutions

End of the section exam

Accommodations:

Affirmation of understanding for class work and homework.

Homework assignments put on the sheet on the cabinet adjustments made when necessary.

Steps broken into smaller segments.