### Lesson 13 Practice Problems

1. Which expression is equivalent to ?
2. Lin says, “When you add or multiply two complex numbers, you will always get an answer you can write in form.”

* Noah says, “I don’t think so. Here are some exceptions I found:”
  1. Check Noah’s arithmetic. Is it correct?
  2. Can Noah’s answers be written in the form , where and are real numbers? Explain or show your reasoning.

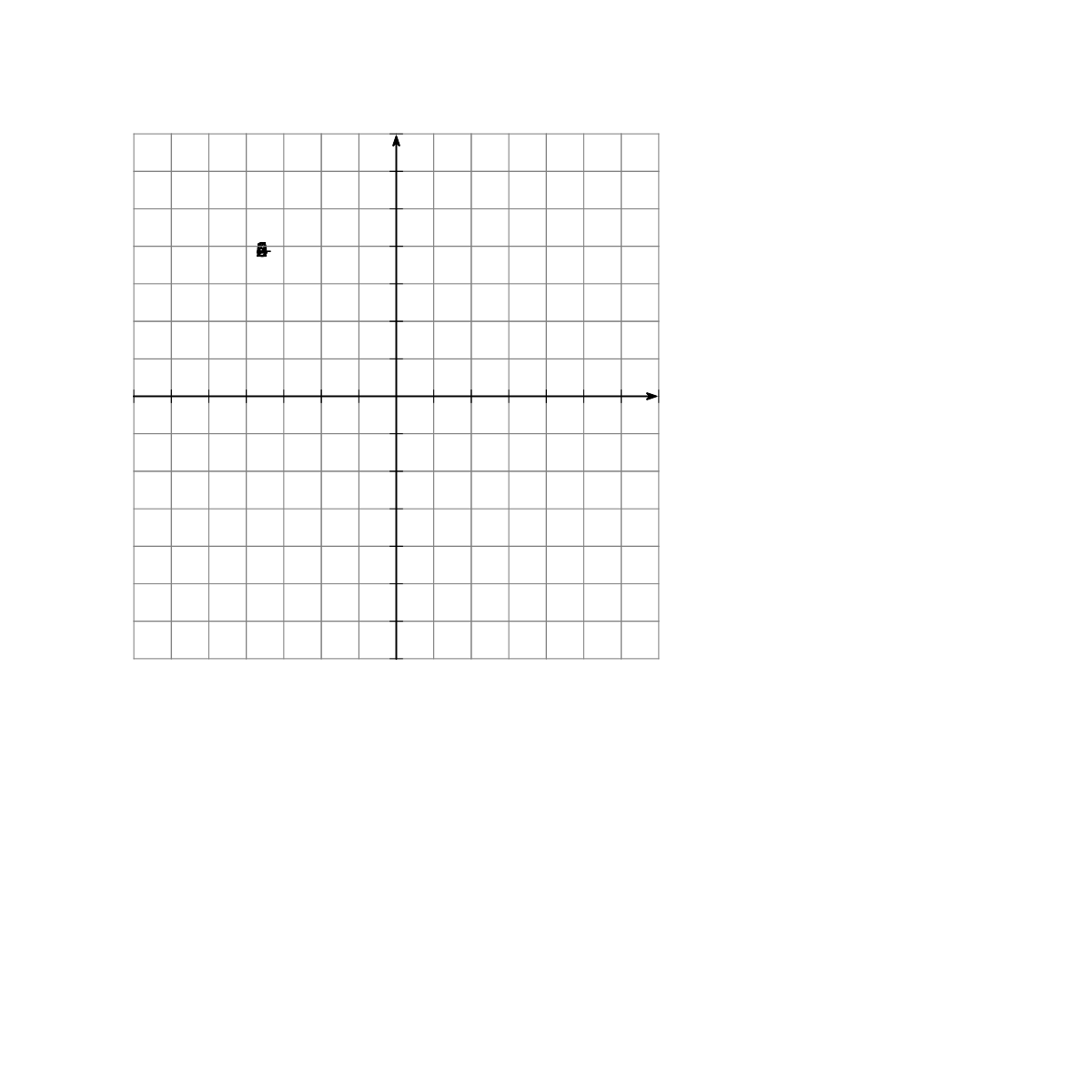
1. Explain to someone who missed class how you would write in the form , where and are real numbers.
2. Which expression is equal to ?
   1. 243
   2. 486

* (From Unit 3, Lesson 4.)

1. Find the solution(s) to each equation, or explain why there is no solution.

* (From Unit 3, Lesson 7.)

1. Plot each number in the complex plane.
   1. -3

* 
* (From Unit 3, Lesson 11.)

1. Select **all** the expressions that are equivalent to for all real values of .

* (From Unit 2, Lesson 23.)



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