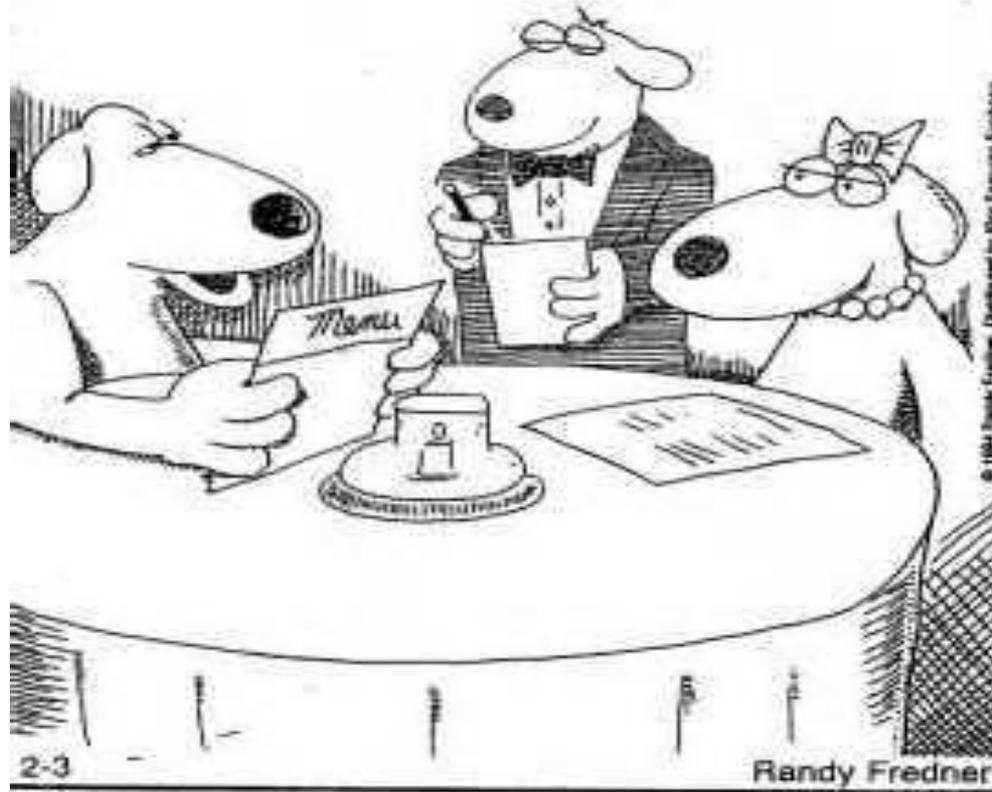


Lesson 1.3.2 and 1.3.3: Adding, Subtracting and Multiplying Imaginary Numbers



"I'll have the math homework."

By the end of this lesson, I will be able to answer the following questions...

1. How do I find the sum, difference or product of complex numbers?
2. How do I determine if a complex number is wholly real or wholly imaginary?

Vocabulary

Complex Number

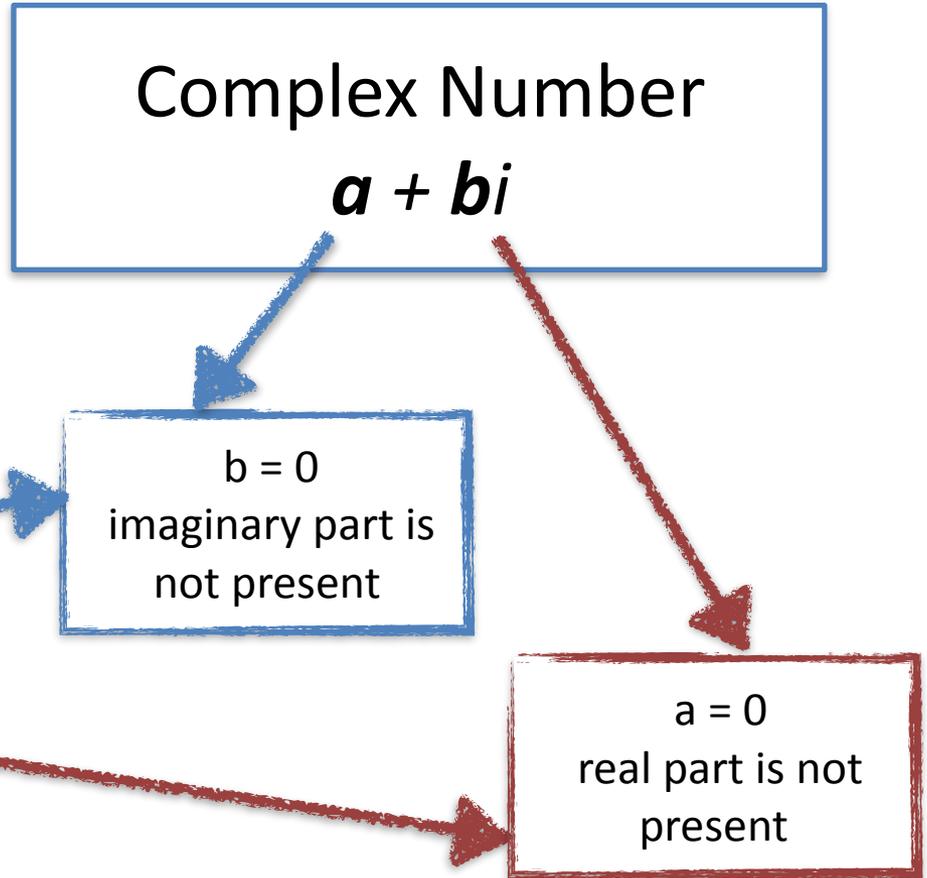
$$a + bi$$

1. Wholly Real

$b = 0$
imaginary part is
not present

2. Wholly Imaginary

$a = 0$
real part is not
present



Prerequisite Skills with Practice

Simplify:

$$4x - 5 - 3x - 13 - x$$

$$(-3x + 2) + (x - 10)$$

$$(-3x + 2) - (-x + 2)$$

$$(x + 2)(2x - 3)$$

Example one

$$\text{Is } (6 + 5i) + (8 - 3i)$$

wholly real or wholly

imaginary or does it have a

real and

an imaginary part?

Example two

$$\text{Is } (2 + 5i) - (2 - 3i)$$

wholly real or wholly

imaginary

or does it have a real and

an imaginary part?

Example Three:

Multiply and Simplify

$$i \cdot 5i$$

Example Four:

Multiply and Simplify

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

Example Five:

Multiply and Simplify

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

THE END



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