Re: complex numbers

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2005−06/msg01809.html

- *From*: David Evens <devens@xxxxxxxxxxxxxxx>
- *Date*: Wed, 15 Jun 2005 22:16:43 −0400

On Tue, 14 Jun 2005 20:36:03 −0500, The TimeLord
<mathnphysics−not@xxxxxxxxxxxxx> wrote:
>Dirk Van de moortel <dirkvandemoortel@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in
><VZfre.119624$ia5.6770755@xxxxxxxxxxxxxxxxxxxx> on Monday 13 June 2005
>08:36 posted to sci.physics.relativity:
>> "N:dlzc D:aol T:com (dlzc)" <N: dlzc1 D:cox T:net@xxxxxxxxxx> wrote in
>> message news:uLfre.7177$7s.91@xxxxxxxxxxxxx
>>> Dear jem:
>>> "jem" <xxx@xxxxxxx> wrote in message
>>> news:FVere.91014$sy6.84187@xxxxxxxxxxxxx
>>> > The TimeLord wrote:
>>> ...
>>> >> You can see that unless you keep straight just what
>>> >> the square root is defined to be,
>>> >
>>> > Sqrt() is defined to be a function so e.g. Sqrt(1) = 1,
>>> > not +−1, and of course i^2 = −1, not +−1.
>>>
>>> sqrt() may be defined by programming languages to be "the
>>> positive square root", allowing the programmer to assign whatever
>>> sign(s) the programmer chooses. But the result of the square
>>> root is bivalued
>>
>> Well, point me to *one* single technical or engineering
>> publication or text in the world where they have an equation
>> where they mean anything other than 3 when they write sqrt(9),
>> and you are in business.
>> sqrt is the positive root of a positive number.
>
>The guy was asking about math, not engineering or tech stuff.
>
>>
>>> (except for sqrt(0)). sqrt(−1) is the
>>> conundrum, i^2 is the solution.
>>
>> There is no such thing as sqrt(−1).
>> sqrt(−1) is for bad enceclopedias.
>
>Definition:

>Sqrt[−1] = i

Not correct, actually.

The correct definition is:

i^2 = −1

which might look the same, but if you consider some of the arguments
about what a square root is that have been going on here, yo should
understand why it isn't the same.

>>> And note that +/−i *is* a
>>> solution, and valid result.
>>
>> Bot i and −i are things that give −1 when squared. You can
>> safely forget everything else.
>
>I don't know how safe it is to forget everything else. It's better to take
>some care and get the correct answer than to rush to error like I did in my
>first response (the conjugate issue), right?

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- ***References***:
  - ♦ ***complex numbers***
    - ◊ *From:* Don Giovanni
  - ♦ ***Re: complex numbers***
    - ◊ *From:* The TimeLord
  - ♦ ***Re: complex numbers***
    - ◊ *From:* jem
  - ♦ ***Re: complex numbers***
    - ◊ *From:* N:dlzc D:aol T:com \(dlzc\)
  - ♦ ***Re: complex numbers***
    - ◊ *From:* Dirk Van de moortel
  - ♦ ***Re: complex numbers***
    - ◊ *From:* The TimeLord

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