

Re: complex numbers and the law of cosine

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- *From:* "Robert J. Kolker" <bobkolker@xxxxxxxxxxx>
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deadpickle wrote:

I am trying to find an angle in an obtuse triangle. The only way I can figure to do this is to use the law of cosine. Here's the problem:

$$c^2 = a^2 + b^2 - 2ab \cos C$$
$$B = \arccos((c^2 - a^2 - b^2) / (-2ab))$$

were:

$$a = 3.105$$

$$b = 3.803$$

$$c = 6.944$$

When I solve for the angle B I get a complex number (), why?
Visualizing the problem show that the angle should be solvable. Is there a way to get a real number for this?

In a triangle a, b, c you must have $a + b > c$. Now check your numbers.

Bob Kolker

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