
Quiz: Multiplication by i has what effect on a number in the complex plane?

Think about your answer and then look at the choices.

Choices:

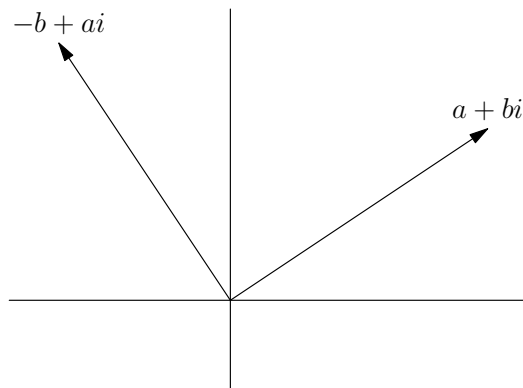
- a) It rotates the number around the origin by 90 degrees counterclockwise.
- b) It rotates the number around the origin by 90 degrees clockwise.
- c) It takes a number to the number pointing in the opposite direction with the same distance from the origin.
- d) It reflects the number across the imaginary axis.
- e) It reflects the number across the real axis.
- f) None of the above.
- g) I don't know.

Pick what you think is the correct choice and then look at the answer.

Answer:

Answer: (??).

We compute: $i(a + bi) = -b + ai$, which is rotated by 90 degrees counterclockwise.



For example, $i \cdot 1 = i$ and $i \cdot i = -1$.

It would be nice to have figures for these two examples. – HB