$i^2 = -1$, geometrically speaking

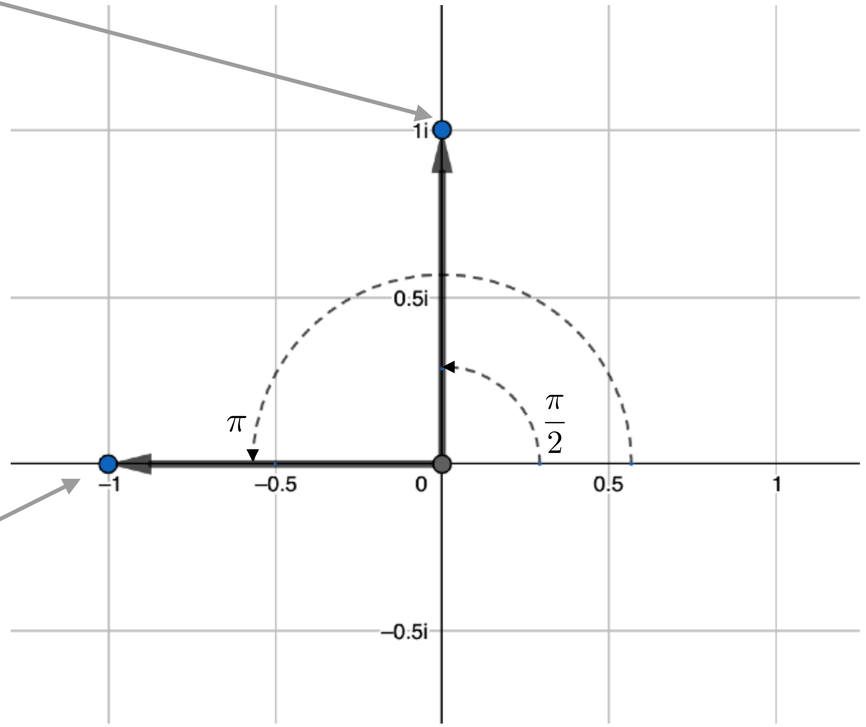
a more concrete and simple example of complex multiplication

i (aka 0 + 1i) is right here.
its length is 1 and its rotation angle is $\pi/2$ radians

from the last slide, $i^2 = i \times i$ should have

- length = (length of i) × (length of i)
- rotation angle = (rotation angle to i) + (rotation angle to i)

length: 1×1 = yep, still 1
rotation angle = $\pi/2 + \pi/2 = \pi$
that puts us right here at -1!



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