

Episode 190 - Cicero's On Ends - Book One - Part 01

Post by “Joshua” of September 9, 2023 at 2:51 PM

<https://maa.org/press/periodic...hout%20citation>.

I've long remembered this second quote from Albert Einstein, and had it in mind when we recorded this episode. I'm probably simplifying too much, but it seems to be saying an axiomatic mathematical discipline like geometry cannot be a perfect representation of the things in nature. This is a very nuanced and subtle argument, but for ancient thinkers like Pythagoras and his followers, geometry allowed them to deduce *a priori* that the number of the celestial spheres was 10 because 10 was the perfect number--it is the sum of a point (1), a line (2), a surface (3), and a volume (4).

Epicurus admired Euclid's unadorned literary style, but found no value in the claim that reasoning deductively from geometry could actually give you new information about nature. And while these and other disciplines have their uses, they are not and cannot be Canonic because they are not primary sources of information about the world, they are secondary. Their value as cognitive tools depends on our ability to evaluate their premises and conclusions using the senses, the feelings, and the prolepsis.