

## Aquiles, la Tortuga y el infinito

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Analítica

This paper shows an analysis of some found solutions for the famous aporia of the race between Achilles and the Tortoise. As an introduction, we present the mechanical solution, to establish that it is not in the field of matters of fact where you can resolve a purely rational problem like the one raised by Zeno of Elea. And so, the main part of the article is dedicated to the mathematical solutions, which face the problem under the point of view of the single, mathematical reason. There are two mathematical solutions for Zeno's paradox. First, we attend to that which we denominate "classical" (because it is the most habitually used by mathematicians), which is based on the calculus of addiction of terms of a geometrical series in progressive decrease. The second considered solution is the one that was proposed by Russell, based upon the theory of the transfinite numbers. The analysis we have made gets us to discover that no one of those solutions can save itself from falling into logical contradictions, therefore it seems that Zeno's problem is an authentic aporia, which, after so much time, continues challenging human intelligence. As the article's conclusion, we suggest that the cause of the impossibility of solving Zeno's problem is the very notion of mathematical continuum, because this notion infringes the logic of facts

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