

A Propositional Logic review of Descartes' phrase "Cogito, ergo sum"

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Abstract

"Cogito, ergo sum" is a Latin phrase used by René Descartes as a philosophical proposition, which became a fundamental axiomatic truth within the boundaries of Western Philosophy, and was used to assert the reality of one's own mind. In this paper, we try to review this statement using First Order Propositional Logic.

The phrase "Cogito, ergo sum"¹[1] can be trivially reduced to a logical sentence

$$p \therefore q$$

It is easy then to see that

$$p \therefore q \iff \neg q \therefore \neg p$$

where $\neg q \therefore \neg p$ is trivially true.

Therefore

$$p \therefore q \text{ is true}$$

References

- [1] René Descartes. *Discourse on the Method of Rightly Conducting One's Reason and of Seeking Truth in the Sciences*. I have not actually read the book. 1637.

¹*Je pense, donc je suis*" in the original French.