

MATHEMATICS AND PARADOXES A RELATION OF LOVE AND HATE: MONTY HALL PARADOX

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ABSTRACT

The paradox concept is closely connected with the evolution of mathematics. Most often it gives rise to the creation of new notions and theories, while it leads to mathematical interpretations of the issue of which is related. Some of the most famous paradoxes consist of Zeno's, Galileo's and Russell's, which are closely related to the concept of infinity in mathematics. On the other hand, the existing mathematical theory is sufficient to interpret paradoxical situations, which are contrary to common sense, such as Monty Hall paradox.

In this paper we describe the paradoxes associated with the infinity while in addition we will focus on the Monty Hall paradox, analyzing in the process all the necessary mathematical background and showing, that the relationship between mathematics and paradoxes is a relationship of love and hate.