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PHILOSOPHY OF MATHEMATICS FROM DESCARTES TO KANT

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Philosophy of Mathematics from Descartes to Kant

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Abstract: The mathematical method and the nature of mathematical knowledge were subjects of intense philosophical discussion in the seventeenth and eighteenth centuries. In particular, there was a debate over whether metaphysical truths admit of distinct proof as geometrical truths do, and whether they may be known with the same degree of certainty. This comparison between geometry and philosophy required a proper understanding of how Euclidean demonstration secured certainty. This Element examines attempts by Descartes, Locke, Leibniz, Wolff, Lambert, Mendelssohn, and Kant to address this question. The emphasis is on metaphysical and epistemological questions about geometrical demonstration in the seventeenth and eighteenth centuries.

Keywords: mathematical method, certainty, demonstration, geometry, Kant

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