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Pieranna Garavaso*, 104 Humanities, Morris, MN 56267. *Three Main Themes in the Philosophy of Mathematics: Mathematical Objects, our Knowledge of them and the Reference of Mathematical Symbols.*

The Philosophy of Mathematics embraces many areas: there are highly specialized debates concerning specific topics such as category theory or Gödel's Theorem and more general issues such as the existence and nature of mathematical objects, the origin and justification of our knowledge of mathematical truths, and the semantic features of mathematical language. The first part of this presentation provides a brief outline of the historical origins of contemporary metaphysical and epistemological debates first in the thought of Plato and Kant and secondly in the more recent views of Formalism, Intuitionism, Logicism and Empiricism. The second part focuses on two major questions, which connect both past and contemporary debates: the ontological question concerning the existence and nature of mathematical objects and the epistemological question concerning the justification of mathematical knowledge. It is argued that these questions are at the heart of current controversies about two arguments: the epistemological argument against mathematical realism and the indispensability argument in support of some form of mathematical realism. (Received July 11, 2019)