The thesis is devoted to ancient Indian mathematics; it describes the mathematical knowledge, computational techniques and methods for solving various arithmetic, algebraic and geometric problems that the Indians knew and used. The thesis follows the development of Indian mathematics from the oldest knowledge contained in ancient Vedic texts to the knowledge originated from the classic medieval arithmetic and algebraic works. This is the first comprehensive text written in Czech which contains the translation of original problems and analysis of their solutions in the current mathematical formulation and symbolism. The sources are mainly English translations of ancient Sanskrit texts and their commentaries.