1023-01-874 Kim Plofker* (Kim_Plofker@alumni.brown.edu), c/o Toke Knudsen, Box 1900, Department of the History of Mathematics, Brown University, Providence, RI 02912. Is addition a fundamental operation in arithmetic? and other foundational issues in Indian mathematics.

Should mathematics be classified as arithmetic versus algebra, or as arithmetic versus geometry? Should the role of detailed proofs of mathematical results be central, supplementary, or remedial? What is the standard set of core mathematical topics? These are a few of the foundational questions that were answered differently by different authors in the Indian mathematical tradition. This talk will describe some of them and discuss the ways they have been understood or misunderstood in the field of history of mathematics. (Received September 22, 2006)