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Roger Hart* (rhart@mail.utexas.edu), Department of History, GAR 101, University of Texas at Austin, 1 University Station B7000, Austin, TX 78712-0220. *Reconstructing Early Developments of Determinants in China: Evidence from the “Nine Chapters of Mathematical Methods” (Jiu zhang suan shu) and Later Commentaries.*

I argue that the early history of the development of determinants should be extended back – 1500 years earlier than previously recognized – to the *Nine Chapters of Mathematical Methods* (c. 150 B.C.E.). I focus on problem 13 from chapter 8 of the *Nine Chapters*, together with solutions preserved in later commentaries. First, I show that among these solutions is found the earliest extant record of a calculation of a determinant (c. 1025 C.E.), and the earliest extant record of a determinantal solution (1661 C.E.). I then present mathematical and textual evidence to reconstruct determinantal solutions to problems in the *Nine Chapters* and argue that these were known at the time of its compilation. (Received September 19, 2005)