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James F Kiernan* (JKIERNAN@BROOKLYN.CUNY.EDU), Mathematics Department, 2900 Bedford Avenue, Brooklyn, NY 11210. *Kuttaka and Ta-Yen: a Comparison of Indian and Chinese Methods of Solving Linear Indeterminate Equations*. Preliminary report.

During the years 450 - 1250 mathematician-astronomers from India and China developed methods to determine the relative position of heavenly bodies. These methods involved the solving of various types of linear indeterminate equations. I will examine the work of several Indian mathematicians from Aryabhata I to Bhaskara II to expound on the development of the method known as kuttaka. I will then compare these methods to the Chinese method of ta-yen as expounded by the mathematician Qin Jiu Shao. I will then present the views of several historians of mathematics as to whether these methods are the same or different. (Received September 09, 2007)