

MATHEMATICS WITH ONLY RODS

JIANQIAO MAO AND ZHENG YANG

Communicated by Jonathan Brown

ABSTRACT. We discuss in this expository paper the rod system used in ancient China based on the mathematical classic work of Sun Zi, with a focus on application to solving systems of linear equations. The mathematics involved is authentic and beautiful, and we believe it is also of interest from historical, cultural, and pedagogical perspectives.

KEYWORDS: *Book of Sun Zi, base ten notation, systems of linear equations*

MSC (2010): 01-01

JIANQIAO MAO, AMERICAN CULTURE AND ENGLISH PROGRAM, MIAMI UNIVERSITY, OXFORD, OH 45056, USA

E-mail address: maoj2@miamioh.edu

ZHENG YANG, DEPARTMENT OF MATHEMATICS, MIAMI UNIVERSITY, OXFORD, OH 45056, USA

E-mail address: yangz15@miamioh.edu

Received December 29, 2017; revised April 6, 2018.