

1035-X1-1444 **Helmer Aslaksen*** (aslaksen@math.nus.edu.sg), Department of Mathematics, National University of Singapore, Singapore, 117543, Singapore. *Heavenly Mathematics: The Mathematics of the Chinese, Indian, and Islamic calendars*. Preliminary report.

I will give an overview of the Chinese, Indian and Islamic calendars and compare them with the Gregorian calendar. The Gregorian calendar is fairly simple, while the three other involve deep mathematical problems. However, there are simple rules of thumb that allow you to predict Chinese New Year, the end of Ramadan and Deepavali with an error of at most one day. In all the three cultures astronomy and calendar making were important in the history of mathematics. I will also discuss the relationship between the mathematics and astronomy and various historical and cultural aspects of the calendars.

I have used this material successfully in a course at the National University of Singapore and in outreach to schools and the general public. (Received September 19, 2007)