

Babylonian Lunar Six Tablets

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I. Introduction

In Babylonian astronomy there are a set of six specific time intervals between the rising and setting of the sun and moon observed near new moon and near full moon every month. These intervals were named by Sachs (1948) the ‘Lunar Six’. The six time intervals are:

On the first day of the month:

- (1) evening: the time between sunset and the setting of the moon after it had become visible for the first time after conjunction. This interval is called NA.

Around the middle of the month, four intervals relating to full moon:

- (2) morning: the time between moonset and sunrise when the moon set for the last time before sunrise; this is called ŠÚ.
 (3) morning: the time between sunrise and moonset when the moon set for the first time after sunrise; called NA.
 (4) evening: the time between moonrise and sunset when the moon rose for the last time before sunset; called ME.
 (5) evening: the time between sunset and moonrise when the moon rose for the first time after sunset; called GE₆.

At the end of the month:

- (6) morning: the time between moonrise and sunrise when the moon was visible for the last time; called KUR.

The six intervals are recorded in the unit UŠ and its subdivision NINDA where there are 60 NINDA in an UŠ. 1 UŠ equals 4 minutes of time and so it is often convenient to translate UŠ as “time degree”.

The sequence in which the four intervals (2) – (5) occur depends on the lunar position relative to the sun, and in particular on whether opposition falls into daytime or nighttime. Theoretically, the following four sequences can be expected:

ŠÚ – ME – NA – GE ₆ ,	on days:	n, n+1, n+1, n+2
ŠÚ – NA – ME – GE ₆ ,		n, n+1, n+2, n+3
ME – ŠÚ – GE ₆ – NA,		n, n, n+1, n+1
ME – GE ₆ – ŠÚ – NA,		n, n+1, n+1, n+2