

## Unit 1 - Homework 3: Timekeeping and the Moon

In order to help you answers these questions, see pages 23–29 in Unit 1.

1. Every lunar month lasts approximately  $29\frac{1}{2}$  days, but what *is* a lunar month?
2. How many *full* days (or *whole* days) are in a lunar month?
3. In the period of a lunar month, a full moon happens about half about *halfway* in between new moons. Hence in a lunar month, a full moon happens how many *full* days *after* the last new moon? In other words, a full moon happens how many *full* days *before* the next new moon?
4. During the time when Sargon the Great was King of Akkad, he defined the week as the number of *full* days in a quarter of a lunar month, and a *quarter* of a lunar month is a *fourth* of a lunar month. Based on how many days are in a lunar month, how many *full* days are in

a quarter of a lunar month? Indeed according to Sargon, how many days are in a week? (Show your work, and round your answer *down* to the nearest *whole* number.)

5. According to the Ancient Mesopotamians, there are seven heavens in the sky, and each heaven is where a different god or goddess travels across the sky. The seven gods of the seven heavens were the sun, the moon, and five planets, but what is so special about those five planets in particular?
6. How did the days of the seven-day week get their names?