Ancient Astronomy Midterm Outline

For Midterm on Monday, Oct. 9, 2023 — Covering Evans through Chapter 4

This is an outline of possible topics for midterm questions which follows closely what we covered.

I italicized two that we didn't mention in class. Those occurred to me later.

0. Hour/minute/second to decimal angle conversions needed for various other problems

1. The nightly motion of the stars

2. The annual motion of the Sun along the Ecliptic

3. The Tropic of Cancer, Tropic of Capricorn, North Celestial Pole, South Celestial Pole, Celestial Equator and the First Point of Aries

4. Interpret a gnomon (shadow) plot or interpret a sundial reading (but no need to be able to reproduce the whole sundial-construction procedure)

5. Apply relationship between zenith angle, latitude, and declination (including when the star is north of you, which messes with signs in the formula)

6. The phases of the Moon

7. An Eratosthenes-style calculation

8. An Aristarchus-style calculation (but not the complicated and wrong one that Evans did — see the Aristarchus handout I produced)

9. Application of Tables of Ascensions, including length of night, length of day, time of year, seasonal hour, and culmination time

10. Calendrical conversions