Astr 150 Assignment 10: quantitative Greek astronomy
due Thurs Apr 2, 2009

Word limit: 250

Answer the following questions:

1. We can imitate Eratosthenes’s method as follows: the driving distance between Pullman and Spokane is about 121 km. The latitudes of Pullman and Spokane are 46.75° and 47.67° respectively. Use this information to calculate the circumference of the Earth. Show your full calculation.
   Compare your calculated value with the accepted value of 40,074 km. Is your value too large? too small? by what percentage? What would be some sources of error in your calculation?

2. List the names and associations of the nine muses of the ancient Greeks; for example, Calliope was the muse of epic poetry. How many muses were devoted to the arts? How many to sciences? Thinking yet again of the harmony of the spheres, what can we deduce about the ancient Greeks’ conception of planetary motion?

Requirements for a good assignment

- The assignment must be completely original work. The assignment will be graded strictly, as expected for a university-level course. The assignment is graded out of 30 points.
- At the top of your paper: have your name, SID, an assignment number or title, and a word count. Unless otherwise stated, use question-and-answer format when writing your assignment, do NOT hand in a run-on paragraph (50% penalty).
- Be typed, double-spaced, and two-sided. Assignments longer than the word limit will receive zero credit. If a diagram is required, it must be neatly drawn (use rulers, compasses) and completely labelled.
- Use quotations only to illustrate your point, not to make it. If you are unclear about this requirement, then speak with the instructor.
- Show completeness of information, conciseness of expression, have a logical development of ideas, and evidence of thought regarding the content.
- Be professional of presentation, e.g., no ragged ends, creases, or ink blobs on the paper.
- If you reference any written sources at all, then you must give a bibliographic entry.
- In all ways, the author should show pride in his/her work.