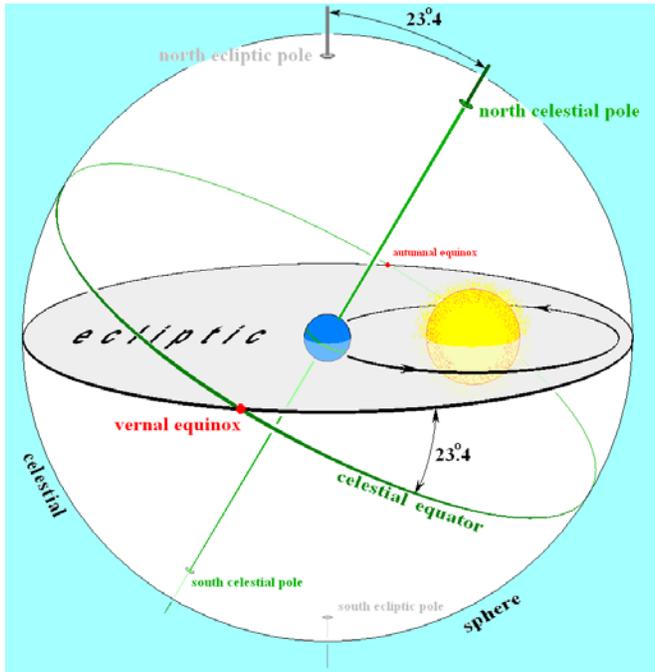
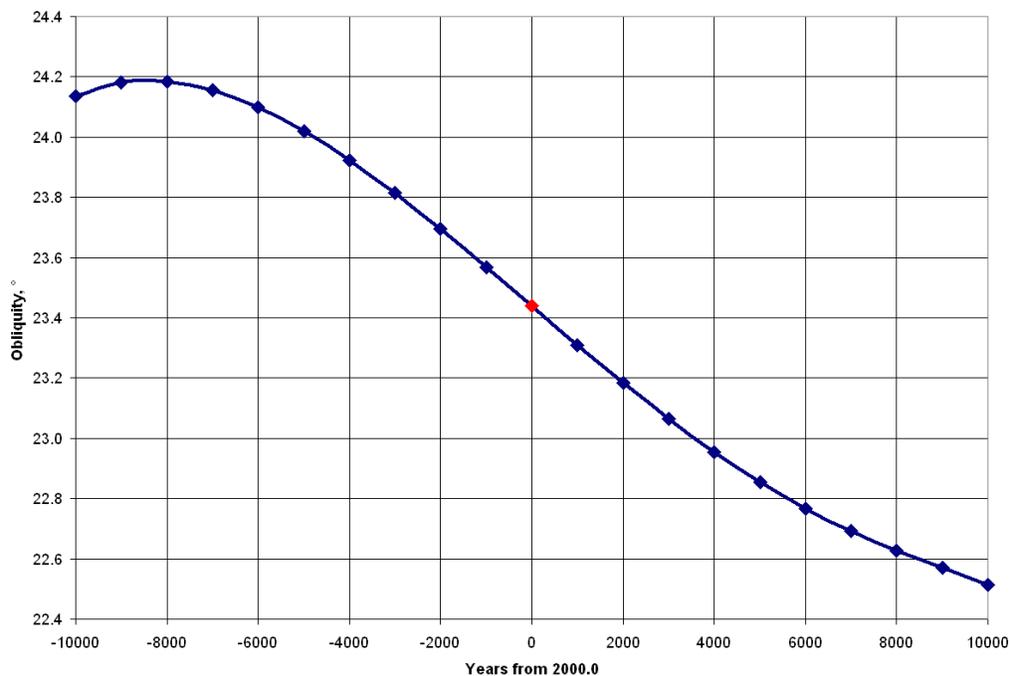


<https://en.wikipedia.org/wiki/Ecliptic>

“The plane of Earth's orbit projected in all directions forms the reference plane known as the ecliptic. Here, it is shown projected outward (gray) to the celestial sphere, along with Earth's equator and polar axis (green). The plane of the ecliptic intersects the celestial sphere along a great circle (black), the same circle on which the Sun seems to move as Earth orbits it. The intersections of the ecliptic and the equator on the celestial sphere are the vernal and autumnal equinoxes (red), where the Sun seems to cross the celestial equator.”



“Obliquity of the ecliptic for 20,000 years, from Laskar (1986... Note that the obliquity varies only from 24.2° to 22.5° during this time. The red point represents the year 2000.”



Your submitted assignment should be in the form of a typed lab report, submitted via turnitin.com.

1. Cover page with title, your name, your group members names, date; your full name and page number on every page (in header or footer).
2. Problem & Background research: What question are you trying to answer? Define the relevant terms (eclipse, ecliptic, amplitude, period, etc.) that you need to understand the problem. State the problem in your own words.
3. Procedure: What tools are you using to solve this problem (physical and/or digital)? How are they being used?
4. Data: Usually presented in a table, clearly labeled with units, and possibly accompanied by an explanation.
5. Calculations: This may be as simple as determining from your data the amplitude, period, and displacement of the trigonometric function, and could also include details of a regression analysis.
6. Graphs: The best report would have both separate and superimposed images of the original scatterplot, graph determined by hand calculation of trig graph characteristics, and graph of the equation resulting from a regression analysis.
7. Conclusion

Any facts or images that are not your original work should include citations and quotations where appropriate. Even though you are working in groups, your report should be written up individually.