

The Cycle of the Seasons 3: Time and Temp

Part 3: Comparing Daylight Hours and Temperature

Your next assignment is to compare your two graphs (Temperature, from Part 2 and Daylight Hours from Part 4b) and analyze your results. Write a summary analysis of your results. Be sure to include answers to the following questions, and any others which come to mind.

- How do the graphs compare?
Be specific: compare and contrast the period, amplitude and zero-values (on January 1) of the two graphs. Also compare each to the fundamental sine and cosine graphs: how are the Time and Temperature graphs transformed from the fundamental sine and cosine graphs?
- Does the amount of daylight hours seem to affect the average temperatures?
- Are there other factors involved?

Final Report: Time and Temperature

Write a complete report summarizing all of your findings from all the Time and Temperature assignments. The overall focus for the report is to present your findings about Daylight Hours and Average Temperature:

- Is the amount of daylight hours a periodic function?
- Is the average temperature a periodic function?
- If so, are these two functions related? (ie. Is Temperature a function of the amount of Daylight Hours?)

Your report should include the following sections:

1. Introduction: an overview of the contents of the report including a description of the question(s) being investigated.

2. Process: a detailed description of the various investigations and analyses you conducted. This section should include charts and graphs, as needed, to report your findings. Charts and graphs may be included as part of the body of your text (ie. imported into your document) or appendicized at the end of the report.

Important note: As part of this report, you should review all the questions raised in each assignment, and your answers to those questions. Report on any questions which you would answer differently, or explain why you were wrong. (For example, compare your predictions for the day of equal daylight/night time to the actual date, and analyze what led to any difference.)

3. Conclusion: the results of your findings. (Basically, this should present your conclusions from Part 5, above.)