

Project 2

Using Body Temperature to Estimate Time Since Death

What To Hand In

Part I:

Complete the following exercises. Always provide justification for your answers, even if I forget to explicitly ask for it.

1. Compute Rainy's values of t_{min} and t_{max} for a body whose temperature was 80°F when found and 76°F 2 hours later. Assume the body is lying in a 60°F room near the infirmary.
2. Explain the meaning of the graphs and indications in Figure 1. Be sure to answer all the bold-faced questions on page 2 in your explanation.
3. Graph Marshall and Hoare's function for the parameter values given and discuss. In general how would you find A and B ? Look at Henssge's table for bodies in still water. Pick a case and graph its cooling curve (assume $A = 1.55$ and that the body was 98.6F when it died). If the temperature of the body is 25C, how long has it been dead?
4. Who killed John Boddy? Explain how you came to your conclusion.

Part II:

Write a one page paper (it's ok if it's a little longer or shorter) about determining time since death based on temperature. In your paper discuss different methods, being sure to answer all of the boldface questions in Part II of the project (but don't restrict yourself to only those questions). Also in your paper, describe Nokes' experiment and your analysis of his data. Again be sure to answer all of the boldfaced questions in Part II.