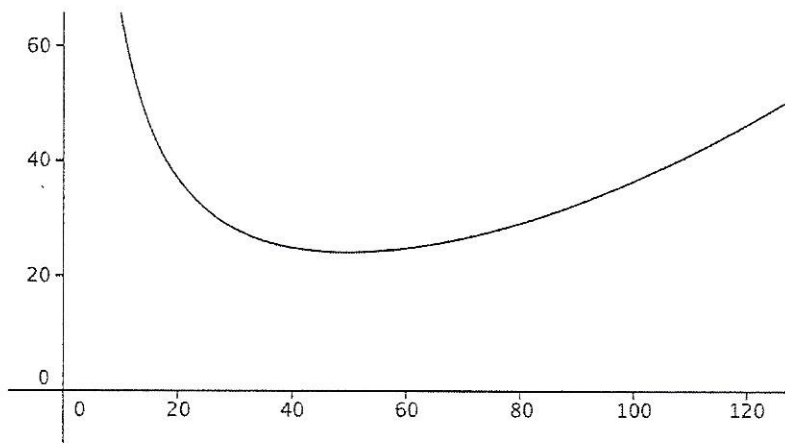
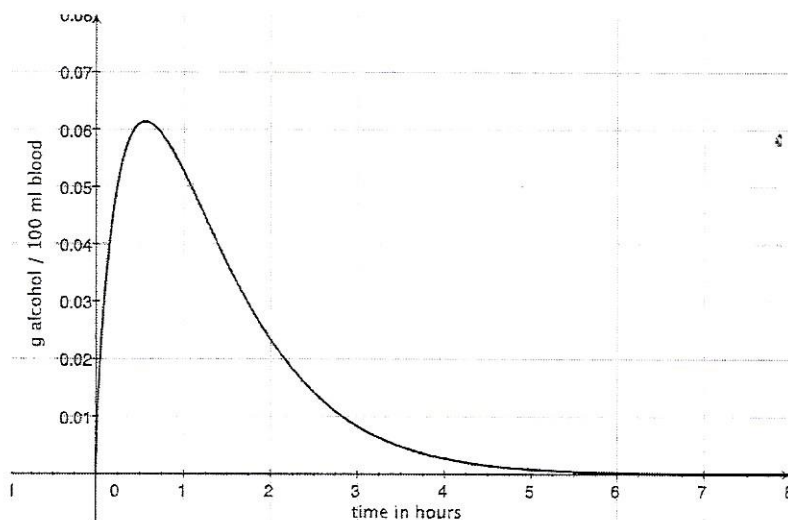


Unit cost of producing an expensive fabric. The graph shows $f(x)$, the dollar cost *per yard* of fabric, given that a certain factory produces x yards of fabric.



Blood alcohol concentration over time. The graph shows $f(t)$, the blood alcohol concentration t hours after a person ingests a dose of alcohol.



Grading Rubric and Checklist

This paper:

Follows the instructions and contains all required elements.

Shows mastery of the meaning of the derivative as related to the graph of f .

Shows mastery of the meaning of the second derivative as related to f' and to the graph of f .

Makes meaningful observations connecting the given graph with the stated context.

Is well organized, coherent, well written, and uses mathematical terms correctly.

Shows creativity or unusual depth.

Some writing tips

1. Use "we" to refer to the writer(s) together with the reader, and use present tense. "We see from the given graph that f is increasing throughout the interval $[0, 8]$."
2. Make the paper topic-centered not author-centered. (Not: "We met at the library three times to do this assignment. We chose the first and third examples." This is both past tense and centered on what the authors did rather than on the mathematical topic.)
3. Include an introduction: "In this paper, we use two examples to explore the relationships between..."
4. You can ask me for more information about mathematical writing.