Riemann Sum

In this Lab you will write Python code and run it. You can write the code yourself or get an LLM to do it. Run the code in Google Colab. If it does not run correctly, rewrite until it works correctly.

Purpose of Lab

To understand how Riemann Sums approximate a definite integral.

1. Choose a cubic polynomial function and finite interval over which to find the definite integral. Write and run Python code to draw and evaluate a left Riemann sum with 10 rectangles approximating the integral.

2. Explain what your code does using in-line comments (the kind that start with a '#'). You can either add one comment per line or if multiple lines can be adequately explained with a single comment, you may do that instead.

Hand In on Gradescope

Your **Google Colab .ipynb** file. Use download to .ipynb in Google Colab or another method.

Grading

- A successful run of code showing output.
- Your code explanations. This part will be worth most of the points.