Written Assignment #6
Due Date: Thursday, September 24
10 points

On written assignments (like exams), all work must be shown to get full credit.

Problem 1. Let \( f(x) = \sqrt{4 + 2x + x^3} \). Find an equation of the line which is tangent to the graph of \( f(x) \) at the point \((2, 4)\).

Problem 2. Let \( f(x) = \sin(x) + \sin^2(x) \) for \( 0 \leq x \leq 2\pi \). Find all points on the graph of \( f(x) \) at which the tangent line is horizontal.