



Bilkent University

Quiz # 08
Math 101-Section 04 Calculus I
16 November 2023 Thursday
Instructor: Ali Sinan Sertöz



Name & Lastname:

Department:

Student ID:

Q-1) Find a function f and a number a such that

$$2023 + \int_a^x \frac{f(t)}{1 + \sin^2 t^4} dt = 7\sqrt{x} \quad \text{for all } x > 0.$$

Hint: Use the Fundamental Theorem of Calculus Part 1. (This question is inspired by exercise 81 on page 338 of your book.) Grading: 10 points

Solution: (Grader: `taha.yigit@ug.bilkent.edu.tr`)