



MATH 111- Quiz 1- Semester 2- 1447H

Time: 30 min

**Instructions:** Calculators are **not** allowed.

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**Question 1(2.5 Marks):** Compute :

$$\sum_{k=1}^3 (2k + 1)$$

**Question 2(2.5 Marks):** Find the derivative of

$$F(x) = \int_{x^2}^{\sin x} (1 + t) dt$$

**Question 3(2.5 + 2.5 Marks):** Evaluate the following integrals

$$\int \frac{\sec^2 x}{(1 + \tan x)^2} dx$$

$$\int \frac{x \cos \sqrt{x^2 + 1}}{\sqrt{x^2 + 1}} dx$$