

MATH 106-004      Quiz 4

Date: April 25, 2025

NAME:.....

Time: 14:50–15:20

STUDENT ID:.....

**Problem 1** Evaluate the following integrals.

(a) (30 points)  $\int \sin(\ln x) \, dx.$

(b) (40 points)  $\int \sqrt{\frac{4-x}{x}} \, dx.$

***Hint.** Use the substitution  $x = u^2$ , followed by a trigonometric substitution.*

(c) (30 points)  $\int \frac{2x^3 - 4x^2 - x - 3}{x^2 - 2x - 3} \, dx.$