

NAME: _____ STU. NO: _____

Wednesday 5 PM, January 24, 2001

MAT 187H1S Quiz 1

Calculus II

Duration: 30 minutes

Only aids allowed for this quiz: a non-programmable calculator.

Instructions: Present your solutions to the following questions on this sheet, using both sides. Make sure to fill in your name and student number at the top of this sheet.

TOTAL MARKS: 20

1. (10 marks) Let $f(x) = \text{Sec}^{-1}(-\sqrt{x^2 + 1})$. Find

(a) (4 marks) $f(-1)$

(b) (6 marks) $f'(-1)$

2. (5 marks) Find $\int \frac{x+7}{\sqrt{x+1}} dx$.

3. (5 marks) If 10% of a sample of radioactive material decays in 3 seconds, what is its half-life?