MAT136H1F – Quiz 2

TUT0201 – R4 (TA: B. Navarro Lameda)

Fall, 2014

FAMILY NAME: ..... GIVEN NAME: .....

STUDENT ID: .....

Mark your lecture and tutorial sections:

L0101 (morning)	L5101 (evening)	T0101 (M3)	T0102 (R4)	T5101 (T5)	T5201 (R5)

You have 15 minutes to solve the problems. Each problem is worth 2 points. Good luck!

Question 1. *What is the average value of* $f(x) = \cos(x^{27})$ *on the interval* $[-100, 100]$*? Explain briefly. (Hint: you don't have to integrate and the explanation can be a single word.)*

Question 2. *Find* $\int \ln(\frac{1}{x})dx$*. (Hint: integrate by parts.)*

Question 3. *Suppose that a region* S *has* y*-cross sections of length* $A(y)$ *and is bounded by* $y = 0$*,* $y = 1$*. Write the volume* V *of the solid generated by rotating* S *around* $y = -1$ *as an integral.*