## MAT136H1F – Quiz 2

TUT5101 – T5 (TA: A. Stewart)

## 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!

Consider the region S under the graph of  $f(x) = \frac{1}{1+x^2}$  on [0,1].

**Question 1.** Sketch the region S making note of the x and y axes.

Let V be the volume of the solid generated by rotating S around the y-axis. Question 2. Write V as an integral.

Question 3. Calculate V.