# MAT136H1F - Quiz 2 

TUT5101 - T5 (TA: A. Stewart)
Fall, 2014

FAMILY NAME: $\qquad$ GIVEN NAME: $\qquad$
STUDENT ID: $\qquad$
Mark your lecture and tutorial sections:

| L0101 (morning) | L5101 (evening) | T0101 (M3) | T0102 (R4) | T5101 (T5) | T5201 (R5) |
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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 $V$.

