Math 1A Quiz 10

April 25th, 2008

Name _____ SID _____

1. Find the most general antiderivatives of each of the following functions:

   (a) $f(x) = \frac{x^4+3\sqrt{x}}{x^2}$

   (b) $g(x) = \frac{4}{\sqrt{1-x^2}}$

   (c) $h(x) = 2\cos x + \sec^2 x$, $-\frac{\pi}{2} < x < \frac{\pi}{2}$.

2. (a) Write an expression for $\int_1^3 t^2 dt$ as a limit of Riemann sums. The Riemann sums you use should divide the interval $[1, 3]$ into n pieces of equal width, and you should use the right-hand endpoints for your x_i^*.

(b) Evaluate the Riemann sum you wrote down in part (a) when $n = 4$.