

PRINT Your Name: _____

Quiz 1 — January 19, 2011 – Section 3 – 8:00-8:50 recitation.

Remove everything from your desk except this page and a pencil or pen.

Circle your answer. **Show your work.**

The quiz is worth 5 points.

Find $\int_0^{13} \frac{dx}{(1+2x)^{2/3}}$.

Answer: Let $u = 1 + 2x$. Then $du = 2x dx$. When $x = 0$, then $u = 1$. When $x = 13$, then $u = 27$. The integral is equal to

$$\frac{1}{2} \int_1^{27} u^{-2/3} du = \frac{1}{2} 3u^{1/3} \Big|_1^{27} = \frac{1}{2}(3)(3 - 1) = \boxed{3}.$$