

PRINT Your Name: _____

Quiz 1 — August 19, 2011 – Section 7 – 10:10 – 11:00

Remove everything from your desk except a pencil or pen.

Circle your answer. **Show your work.** Your work should be correct and coherent.

The quiz is worth 5 points.

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

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

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