

PRINT Your Name: \_\_\_\_\_

**Quiz 1 — August 26, 2012 — Section 2 — 4:40 — 5:30**

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

The solution will be posted soon after the quiz is given.

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

The quiz is worth 5 points.

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

**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

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