

PRINT Your Name: _____

Quiz 5 — September 2, 2015

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. **Check your answer.**

Find $\int \tan^2 x dx$.

Answer: Use the identity $\tan^2 x + 1 = \sec^2 x$.

$$\int \tan^2 x dx = \int (\sec^2 x - 1) dx = \boxed{\tan x - x + C}.$$

Check. The derivative of the proposed answer is

$$\sec^2 x - 1 = \tan^2 x \checkmark.$$