

Due 7 Nov, at start of recitation. Write up your solution carefully.

1. For each of the following formulas, say if it is right or wrong, clearly justifying your answer:

(a)  $\int \tan \theta \sec^2 \theta \, d\theta = \frac{\sec^3 \theta}{3} + C,$

(b)  $\int \tan \theta \sec^2 \theta \, d\theta = \frac{1}{2} \tan^2 \theta + C,$

(c)  $\int \tan \theta \sec^2 \theta \, d\theta = \frac{1}{2} \sec^2 \theta + C.$