Math 1B 223 DIS Quiz 2

7 Feb 2019

Name: _____ Score: _____

1. Evaluate each of the following integrals.

   (a) $\int \frac{\cos^2 x}{\sin x} dx$ (3 points)

   (b) $\int_0^3 x^2\sqrt{9-x^2}dx$ (3 points)

2. Consider the integral $\int \frac{1}{1-x^2} dx$.

   (a) Evaluate the integral using partial fraction decomposition. (2 points)

   (b) Evaluate the integral using the trigonometric substitution $x = \sin\theta$. (2 points)

   (c) * Explain why you get two apparently different answers for part (a) and (b). (Bonus 1 point)