

Quiz# 1

Name:

ID #:

Section:

Serial #:

1. Compute $\int \frac{\sin x \cos^{3/2} x \sec^{7/2} x}{\csc^{3/2} x \sin^{5/2} x} dx$ (if possible).

2. Without evaluating the integral, show that $8 \leq \int_{-2}^2 \sqrt{4+x^2} dx \leq 8\sqrt{2}$.

3. If f is continuous and g and h are differentiable functions, find a formula for $\frac{d}{dx} \left(\int_{g(x)}^{h(x)} f(t) dt \right)$. Show all your work.

4. Evaluate $\int_1^4 [x + \cot^2(3-x)] dx$ (if possible).

With My Best Wishes