
Name: _____

ID #: _____
(Show Your Work)

1. Find the average value of $f(x) = \tan^{-1} x$ on $[0, 1]$ interval.

2. Evaluate $\int \tan^4 x \, dx$.

3. Evaluate $\int_0^{\pi/4} \sqrt{1 + \cos 4x} \, dx$.

4. Evaluate $\int \frac{dx}{\sqrt{2x - x^2}}$.

5. Evaluate $\int \frac{-2x + 4}{(x^2 + 1)(x - 1)^2} dx$.

6. Evaluate the Improper Integral $\int_0^3 \frac{dx}{(x-1)^{2/3}}$.