

SHOW WORK

1. Evaluate the following integral $\int \tan^{-1}(2x) dx$

8 pts.

2. Evaluate the following integral $\int \frac{dx}{x^2 \sqrt{4x^2 - 9}}$

8 pts.

3. Evaluate the following integral $\int \cos^4(x) \sin^3(x) dx$

8 pts.

4. Evaluate the following integral $\int \sec^2(3x+1) dx$

6 pts.