

Directions: Show all work and simplify your answers.

1. Evaluate the following integrals

a)

$$\int_0^{\pi/3} \sin x \ln(\cos^3 x) \, dx$$

b)

$$\int e^s \sin(\pi/3 - s) \, ds$$

c)

$$\int \theta^3 \cos(\theta^2) d\theta$$

d)

$$\int x \sec^{-1} x dx$$