

Tougaloo College
MAT222 - Calculus II
Howework 09 - Spring, 2025

7.3 Exercises

1. Evaluate the integral.

(a) $\int \frac{x^2}{\sqrt{9-x^2}} dx$ (17 Points)

(b) $\int_0^{1/2} x\sqrt{1-4x^2} dx$ (17 Points)

(c) (Problem 12) $\int_0^2 \frac{dt}{\sqrt{4+t^2}}$ (15 Points)

(d) (Problem 13) $\int \frac{\sqrt{x^2-9}}{x^3} dx$ (17 Points)

(e) (Problem 23) $\int \frac{dx}{\sqrt{x^2+2x+5}}$ (17 Points)

(f) (Problem 25) $\int x^2\sqrt{3+2x-x^2} dx$ (17 Points)

Total for Question 1: 100 Points