Quiz #4, 2/12Math 157 (Calculus II), Spring 2025

Problem 1 is worth 5 points and Problem 2 is worth 5 points, for a total of 10 points. Remember to $show\ your\ work$ on all problems!

1. Compute the indefinite integral $\int \sin^3(x) \cos^2(x) dx$.

2. Compute the definite integral $\int_0^1 \frac{1}{\sqrt{4-x^2}} dx$ using a trigonometric substitution. Express your answer in the simplest form that you can.