WRITE YOUR NAME:

MAC 2312 WRITTEN HOMEWORK #7

Due Tuesday March 5th, in Canvas

Question 1. Approximate the integral using Simpson's rule with $n = 4$ and with $n = 6$ subintervals.

$$\int_0^{\pi} \sin^4 x \, dx$$

Question 2. Determine whether the improper integrals converge or diverge, and find their value if they converge.

$$\int_2^{\infty} \frac{dx}{\sqrt{x}}$$

$$\int_{-\infty}^{-1} \frac{dx}{x^3}$$