

WRITE YOUR NAME:

MAC 2312 Homework 5
Due in class, Friday April 6th
You can use more paper if necessary, but please STAPLE

Question 1. Evaluate the integral.

$$\int \sin^3 x \cos^3 x \, dx$$

Question 2. Evaluate the integral.

$$\int \tan^5 x \sec^4 x \, dx$$

Question 3. Evaluate the integral.

$$\int_3^6 \frac{\sqrt{x^2 - 9}}{x} \, dx$$

Question 4. Evaluate the integral.

$$\int_8^{16} \frac{1}{x^2 - 6x - 7} \, dx$$

Question 5. Determine whether the improper integral converges or diverges.

$$\int_2^{\infty} \frac{1}{x\sqrt{\ln x}} \, dx$$