

Name _____

Homework 7
Section 7.7

Determine whether each of the following integrals converge or diverge by using an appropriate comparison. Be sure to justify your conclusion.

1. (5) $\int_1^{\infty} \frac{2 + \cos \phi}{\phi^2} d\phi$

2. (5) $\int_2^{\infty} \frac{x + e^x}{xe^x} dx$

3. (5) $\int_0^3 \frac{x^2 + x + 1}{4x^5 - x^6} dx$

4. (5) $\int_1^\infty \frac{1}{\sqrt{x} + e^x} dx$