

Math 2B Worksheet: 7.8 Improper Integrals

Write your names and Student ID numbers at the top of the page

Determine whether each improper integral is convergent or divergent. Evaluate those which are convergent.

1. $\int_1^{\infty} \frac{e^{-1/x}}{x^2} dx$

2. $\int_{-\infty}^{\infty} x e^{-x^2} dx$

3. $\int_{-\infty}^{\infty} \frac{1}{1+x^2} dx$

4. $\int_{-2}^3 \frac{1}{x^4} dx$

5. $\int_{-1}^2 \frac{x}{(x+1)^2} dx$