

Math 102 — Improper integrals

Summary. Try each of the following problems together in a small group.

Problem 1. Determine whether the following improper integrals converge.

a. $\int_0^{\infty} e^{-2x} dx$

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

c. $\int_1^{\infty} \frac{1}{(2x+5)^2} dx$

d. $\int_1^{\infty} \frac{1}{(2x-5)^2} dx$