

Math 16B
Kouba
Improper Integrals

Determine the following improper integrals.

1.) $\int_1^{\infty} e^{-7x} dx$

2.) $\int_{-\infty}^0 e^{(1/4)x} dx$

3.) $\int_{-\infty}^{\infty} e^{3x} dx$

4.) $\int_4^7 \frac{3}{4-x} dx$

5.) $\int_2^{\infty} \frac{1}{\sqrt{x-2}} dx$

6.) $\int_0^{\infty} \frac{1}{(x-1)^3} dx$

7.) $\int_5^{\infty} \frac{1}{x^2-9} dx$

8.) $\int_3^{\infty} \frac{x^3-x+1}{x^2-4} dx$