

Math 232 Worksheet - Improper Integrals

Evaluate the integral.

$$(1) \int_1^{\infty} \frac{1}{x^{1.1}} dx \quad (2) \int_1^{\infty} \frac{1}{x^{0.9}} dx \quad (3) \int_0^{\infty} e^{-x} dx \quad (4) \int_0^{\infty} x^2 e^{-x} dx$$

$$(5) \int_1^2 \frac{1}{x-1} dx \quad (6) \int_0^1 \frac{1}{x^{1.1}} dx \quad (7) \int_0^1 \frac{1}{x^{0.9}} dx \quad (8) \int_0^1 \frac{\ln x}{\sqrt{x}} dx$$