

M1B/Schoenbrun Section 5.10 Improper Integrals 1

Evaluate the improper integrals that converge.

$$1) \int_0^{\infty} \frac{1}{1+x^2} dx$$

$$2) \int_0^{\infty} \frac{\log x}{x^2} dx$$

$$3) \int_e^{\infty} \frac{1}{x \log x} dx$$