

8.8 Improper Integrals

Name:

Date: July 17, 2015

P 18. Determine whether the improper integral diverges or converges. Evaluate the integral if it converges.

$$\int_1^{\infty} \frac{6}{x^4} dx$$

P 22. Determine whether the improper integral diverges or converges. Evaluate the integral if it converges.

$$\int_0^{\infty} e^{-x} \cos x dx$$

P 26. Determine whether the improper integral diverges or converges. Evaluate the integral if it converges.

$$\int_1^{\infty} \frac{\ln x}{x} dx$$

P 28. Determine whether the improper integral diverges or converges. Evaluate the integral if it converges.

$$\int_0^{\infty} \frac{x^3}{(x^2 + 1)^2} dx$$

P 34. Determine whether the improper integral diverges or converges. Evaluate the integral if it converges.

$$\int_0^5 \frac{10}{x} dx$$

P 38. Determine whether the improper integral diverges or converges. Evaluate the integral if it converges.

$$\int_0^8 \frac{3}{\sqrt{8-x}} dx$$

P 66. Determine whether the improper integral diverges or converges. Evaluate the integral if it converges.

$$\int_0^3 \frac{10}{x^2 - 2x} dx.$$