$$\int_{-\infty}^{\infty} \frac{dx}{x^2+4} = \frac{\pi}{2}$$

$$\int_{-\infty}^{\infty} \frac{x\sin x}{x^2+4}dx = \frac{\pi}{e^2}$$

$$\int_{-\infty}^{\infty} \frac{dx}{16+x^4} = \frac{\pi\sqrt{2}}{16}$$

$$\int_{0}^{2\pi} \frac{\sin^2\theta}{5-3\sin\theta}d\theta = \frac{5\pi}{18}$$

$$\int_{0}^{2\pi} \frac{d\theta}{1-2a\cos\theta+a^2} = \frac{2\pi}{1-a^2} \qquad (|a|<1)$$

$$\int_{0}^{2\pi} \frac{d\theta}{1+\cos^2\theta} = \sqrt{2}\pi$$

$$\int_{-\infty}^{\infty} \frac{x}{(x^2+x+1)^2}dx = -\frac{2}{9}\pi\sqrt{3}$$

$$\int_{-\infty}^{\infty} \frac{\cos x}{x^4+2x^2+1}dx = \frac{\pi}{e}$$

$$\int_{0}^{+\infty} \frac{x^2+2}{(x^2+1)^2}dx = \frac{3\pi}{4}$$