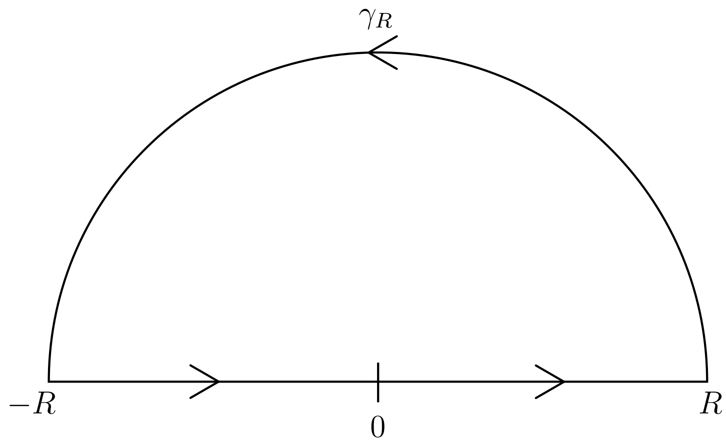

$$\begin{cases} \text{rational } {}^x\daleth = {}^x p / {}^x q \quad \bar{\deg} q - \bar{\deg} p \geqslant 1 \\ x \in \mathbb{R} \Longrightarrow {}^x q \neq 0 \end{cases} \Longrightarrow$$

$$\int_{dx/2\pi}^{\mathbb{R}} {}^x\daleth \begin{cases} \exp(iax) \\ \cos(ax) \\ \sin(ax) \end{cases} = \begin{cases} i \\ -\mathcal{I} \\ \Re \end{cases} \sum_{\mathcal{I}(z) > 0} \operatorname{Res} \exp(iaz)\ {}^z\daleth$$

$$\overset{\geqslant}{\mathbb{C}}{}^R \overline{\underset{z}{\ }\daleth z^2}^{\circ} \leqslant M \Longrightarrow \overline{\int_{dz/\pi}^{\exp(\varepsilon i) R | \exp(-\varepsilon i) R}} {}^z\daleth \leqslant R \frac{M}{R^2} = \frac{M}{R} \underset{R \nearrow \infty}{\rightsquigarrow} 0$$

$$\int_{dx/\pi}^{\mathbb{R}_+} = \int_{dx/2\pi}^{\mathbb{R}} \begin{cases} \dfrac{\cos x}{x^2 + a^2} = -\mathcal{I} \begin{cases} \operatorname{Res} \dfrac{\exp(iz)}{z^2 + a^2} \\ \overset{\text{Ev}}{\underset{\text{Der}}{=}} \dfrac{\exp(iz)}{2z}\Big|_{ia} = \dfrac{\exp(-a)}{2ia} \end{cases} = \dfrac{\exp(-a)}{2a} \\ \dfrac{\cos x}{x^2 + 1} = \dfrac{1}{2e} \\ \dfrac{\cos(bx)}{x^2 + a^2} = \dfrac{\exp(-ab)}{2a} \end{cases}$$

$$\int_{dx/\pi}^{\mathbb{R}} \begin{cases} \dfrac{x^3 \sin x}{x^4 + a^4} = 2\Re \begin{cases} \operatorname{Res} \dfrac{z^3 \exp(iz)}{z^4 + a^4} \overset{\text{Ev}}{\underset{\text{Der}}{=}} \dfrac{z^3 \exp(iz)}{4z^3} \\ = \dfrac{\exp(iz)}{4}\Big|_{a\frac{i-1}{\sqrt{2}}}^{a\frac{i+1}{\sqrt{2}}} = \dfrac{1}{2} \exp\left(-a/\sqrt{2}\right) \cos\left(a/\sqrt{2}\right) \end{cases} = \exp\left(-a/\sqrt{2}\right) \cos\left(a/\sqrt{2}\right) \\ \dfrac{x^3 \sin x}{x^4 + 16} = \exp\left(-\sqrt{2}\right) \cos \sqrt{2} \end{cases}$$

$$\int_{dx/\pi}^{\mathbb{R}_+} \frac{\cos(2ax) - \cos(2bx)}{x^2}$$

$$\int_{dx/\pi}^{\mathbb{R}} \frac{x \sin(bx)}{x^2 + a^2} = \exp(-ab)$$

$$\int_{dx/\pi}^{\mathbb{R}} \frac{\cos(bx)}{x^2 + a^2} = \frac{\exp(-ab)}{a}$$

$$\int_{dx/\pi}^{\mathbb{R}} \frac{\cos x}{(x+b)^2 + a^2}$$

$$\int_{dx/\pi}^{\mathbb{R}} \frac{\sin x}{x^2 + 6x + 10}$$

$$\int_{dx/\pi}^{\mathbb{R}} \frac{x \sin x}{x^4 + 1}$$

$$\int_{dx/\pi}^{\mathbb{R}_+} \begin{cases} \dfrac{\cos(cx)}{(x^2+a^2)\left(x^2+b^2\right)} = \dfrac{a \exp(-cb) - b \exp(-ca)}{2ab\left(a^2 - b^2\right)} \\ \dfrac{\cos(cx)}{(x^2+1)(x^2+4)} \end{cases}$$

$$\int_{dz}^{\mathbb{R}i} \frac{\exp(az)}{\underbrace{z^2 - 1}_{2}} = \begin{cases} a < 0 \\ a = 0 \\ a > 0 \end{cases}$$