Theorem 1 (Residue Theorem). Let f be analytic in the region G except for the isolated singularities $a_1, a_2, \ldots, a_m$. If γ is a closed rectifiable curve in G which does not pass through any of the points a_k and if $\gamma \approx 0$ in G then

$$\operatorname*{Res}_{z=a} f(z) = \operatorname*{Res}_{a} f = \frac{1}{2\pi i} \int_C f(z)\, dz,$$

where $C \subset D \setminus \{a\}$ is a closed line $n(C, a) = 1$ (e. g. a counterclockwise circle loop).

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$a\alpha b\beta c\partial d\delta e\epsilon\varepsilon f\zeta\xi g\gamma y h\hbar i\imath i j k\kappa l\ell\lambda m n\eta\theta\vartheta o\sigma\varsigma\phi\varphi\wp p\rho\varrho q r s t\tau\pi u\mu\nu\upsilon v w\omega\varpi$

$xyz\infty \propto \emptyset y = f(x)$ $\qquad \Sigma \int \Pi \quad \prod\int \sum \quad \Sigma_a^b \int_a^b \Pi_a^b \quad \sum_a^b \int_a^b \prod_a^b$