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

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

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

ΛΛ∇BCDΣEFΓGHIJ*KLMNO*ΘΩPΦΠΞQRST*UVWXY*ΥΨZ ABCDabcd1234
$\alpha a b \beta c \partial d \delta e \epsilon \varepsilon f \zeta \xi g \gamma h \hbar i \imath j k \kappa l \ell \lambda m n \eta \theta \vartheta o \sigma \varsigma \phi \varphi \wp \rho \varrho q r s t \tau \pi u \mu v \nu \upsilon w \omega \varpi$

$xyz\infty \propto \emptyset y = f(x)$ $\qquad \sum \int \prod \; \prod \int \sum \; \sum_a^b \int_a^b \prod_a^b \; \sum_a \int\limits_a^b \prod_a$