

1 The default option

Theorem (Residue Theorem). *Let f be analytic in the region G except for the isolated singularities a_1, a_2, \dots, 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*

$$\frac{1}{2\pi i} \int_{\gamma} f \left(x^{\mathbf{N} \in \mathbb{C}^{N \times 10}} \right) = \sum_{k=1}^m n(\gamma; a_k) \operatorname{Res}(f; a_k).$$

Theorem (Maximum Modulus). *Let G be a bounded open set in \mathbb{C} and suppose that f is a continuous function on \overline{G} which is analytic in G . Then*

$$\max \{ |f(z)| : z \in \overline{G} \} = \max \{ |f(z)| : z \in \partial G \}$$

First some large operators both in text: $\iiint_Q f(x, y, z) \, dx \, dy \, dz$ and $\prod_{\gamma \in \Gamma_{\tilde{C}}} \partial(\tilde{X}_{\gamma})$; and also on display

$$\iiint\limits_Q f(w, x, y, z) \, dw \, dx \, dy \, dz \leq \oint_{\partial Q} f' \left(\max \left\{ \frac{\|w\|}{|w^2 + x^2|}; \frac{\|z\|}{|y^2 + z^2|}; \frac{\|w \oplus z\|}{|x \oplus y|} \right\} \right).$$