$$\int_{\partial S} \mathbf{G} \cdot d\mathbf{r} \qquad \iiint_{\mathbf{S}} \mathbf{F} \cdot d\mathbf{S} \qquad \iiint_{T} \operatorname{div} \mathbf{F} \, dV$$

$$Ja \qquad \qquad Ja$$

$$S \subset B \text{ closed?} \qquad \text{Nei} \qquad \mathbf{F} = \operatorname{curl} \mathbf{G}? \qquad \text{Nei} \qquad S \text{ closed?}$$

$$\int_{a}^{b} \int_{c}^{d} \mathbf{F}(\mathbf{r}(u, v)) \cdot \left(\frac{\partial \mathbf{r}}{\partial u} \times \frac{\partial \mathbf{r}}{\partial v}\right) d(u, v) \qquad \iiint_{T} \operatorname{div} \mathbf{F} \, dV - \iint_{B} \mathbf{F} \, d\mathbf{S}$$