



general Stokes theorem

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Let M be an oriented r -dimensional differentiable manifold with a piecewise differentiable boundary ∂M . Further, let ∂M have the orientation induced by M . If ω is an $(r - 1)$ -form on M with compact support, whose components have continuous first partial derivatives in any coordinate chart, then

$$\int_M d\omega = \int_{\partial M} \omega.$$