

Stokes' Theorem & The de Rham Cohomology

MATH 412 – Mathematical Analysis II Final Project

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Differential Form

The concept of **differential forms** extends the concept of a vector field as well as how to integrate over them. Recall from calculus III

- We have **Green's theorem**, which says

$$\oint_C (M dx + N dy) = \iint_D \left(\frac{\partial N}{\partial x} - \frac{\partial M}{\partial y} \right) dA$$

