

0.1 Green's theorem

We have a curve C on a plane.

Inside this is region D .

We have two functions: $L(x, y)$ and $M(x, y)$ defined on the region and curve.

$$\oint_C (Ldx + Mdy) = \int \int_D \left(\frac{\partial M}{\partial x} - \frac{\partial L}{\partial y} \right) dx dy$$