# Figures Calculus III

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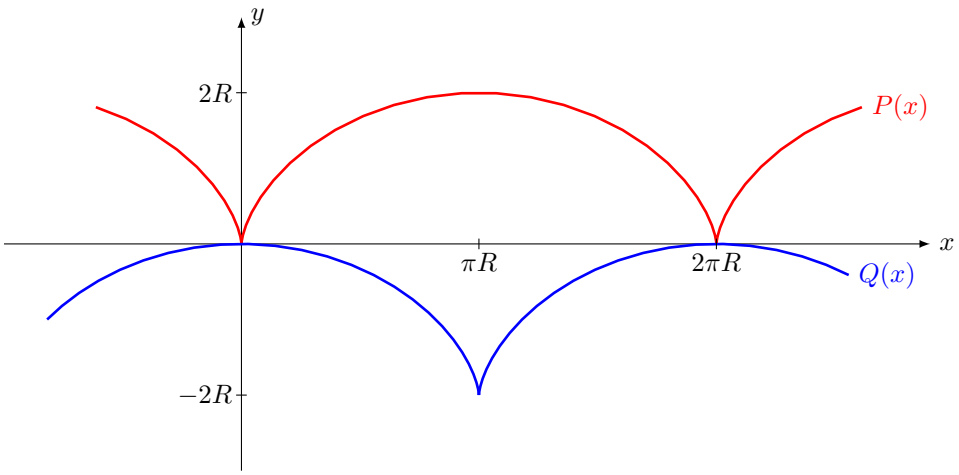
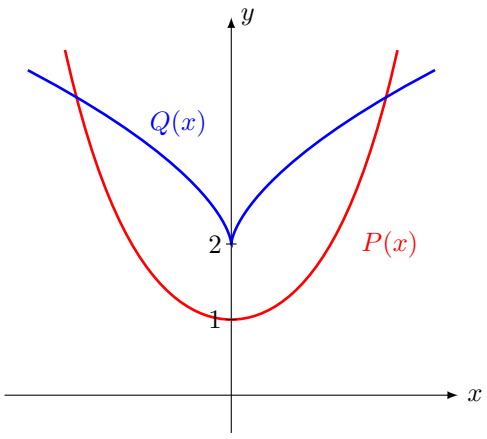
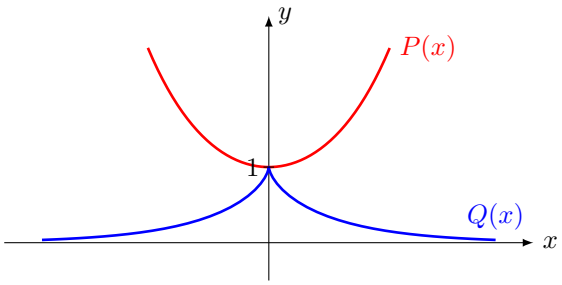
### 1.2.3 Example evolute cycloid



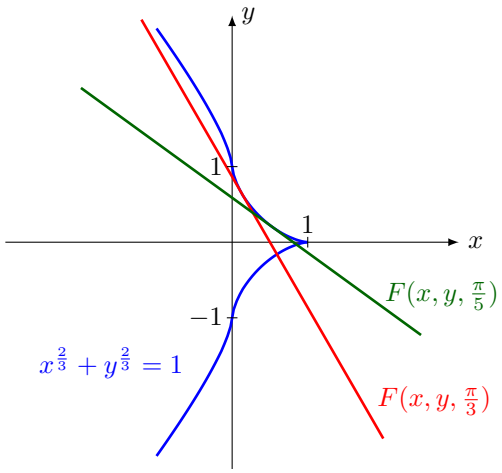

### 1.2.4 Example evolute catenary



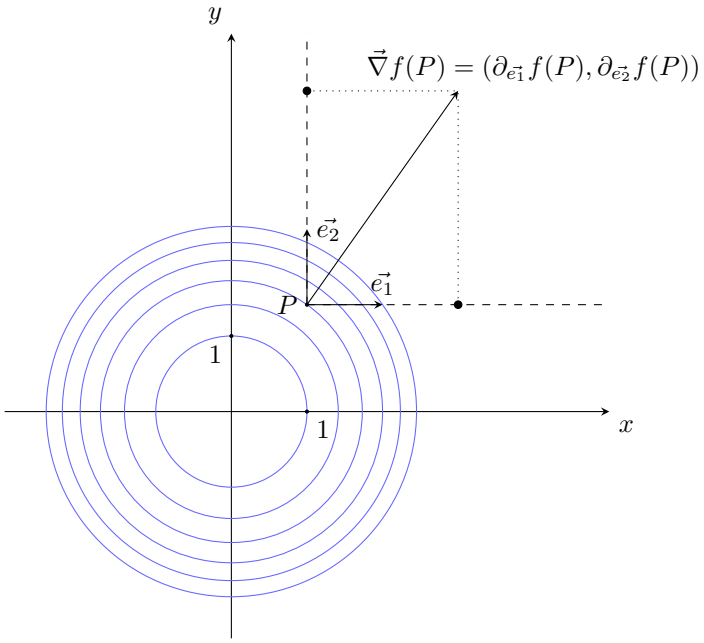
### 1.2.5 Example involute catenary (tractrix)



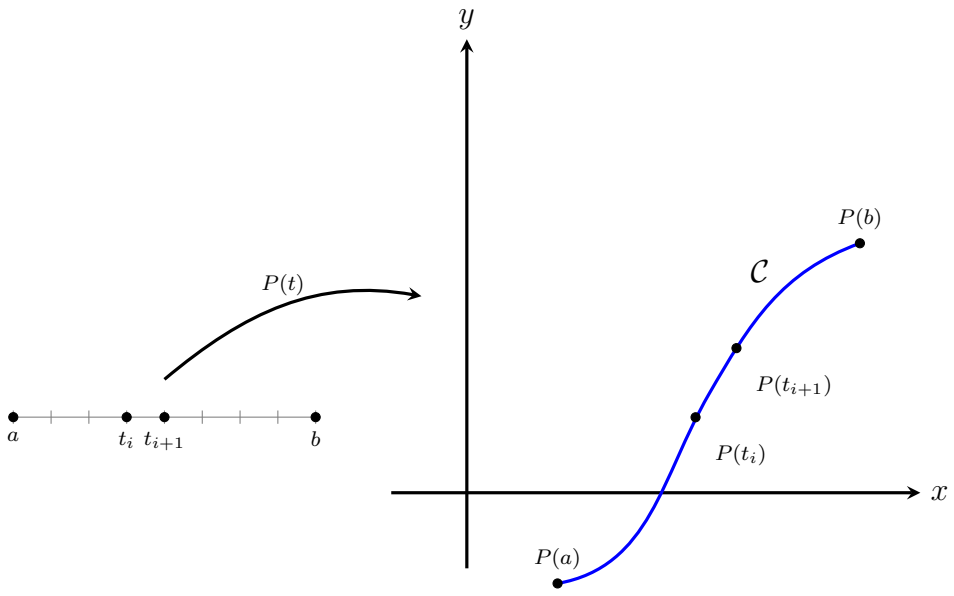

### 1.2.8 Example envelope family of straight lines



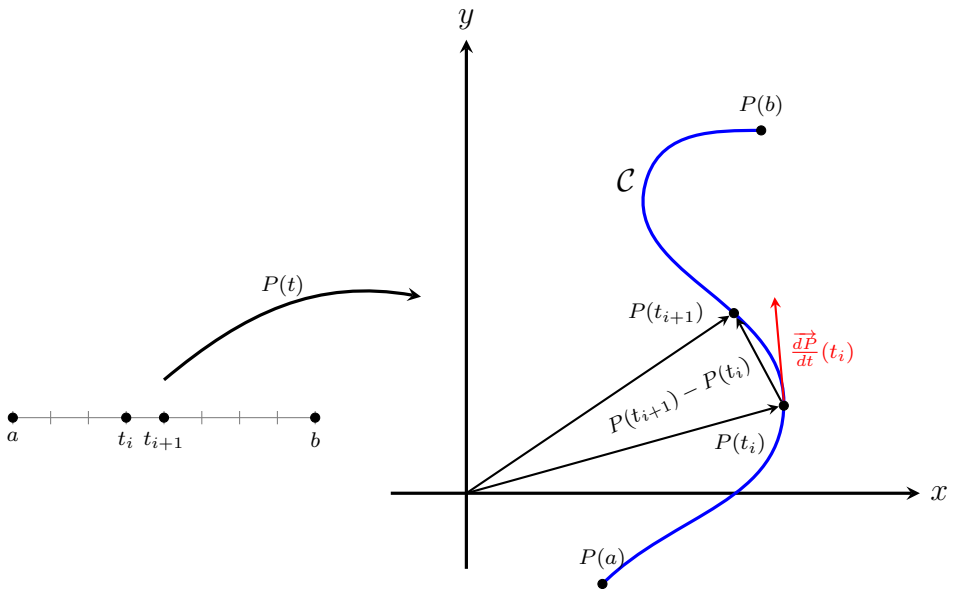
## 2.3 Gradient of scalar field



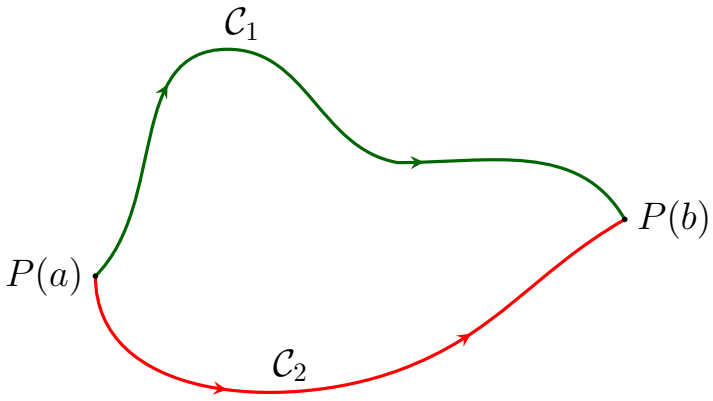

## 3.1 Line integral of a scalar field



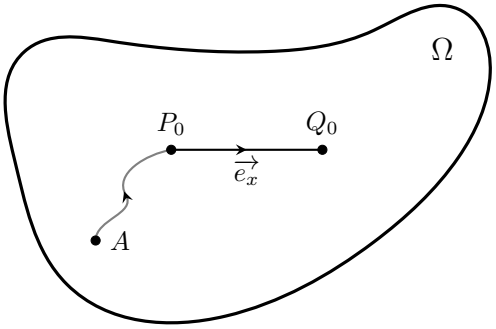
## 3.2 Line integral of a vector field



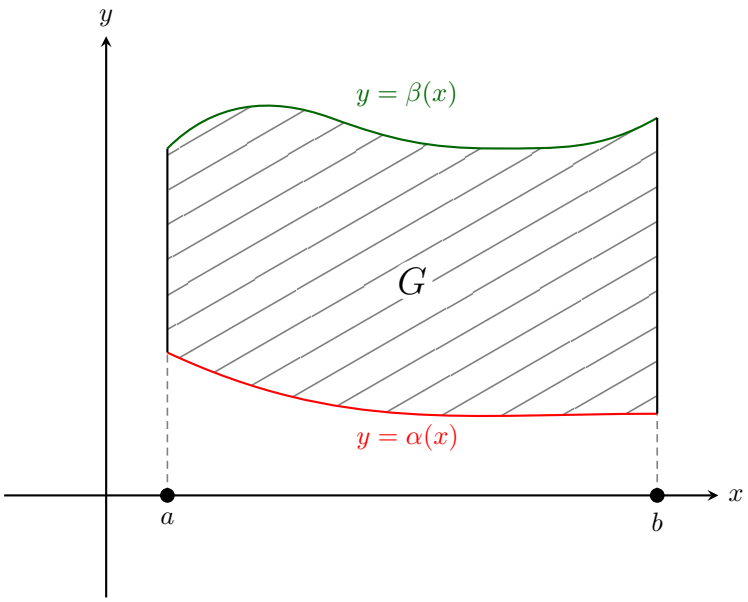

### 3.4.2 Conservative field along a curve



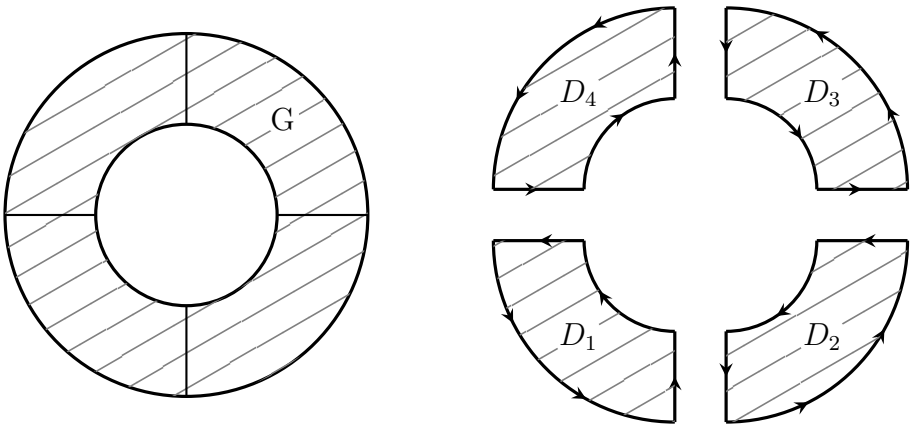
### 3.4.3 Proof conservative field



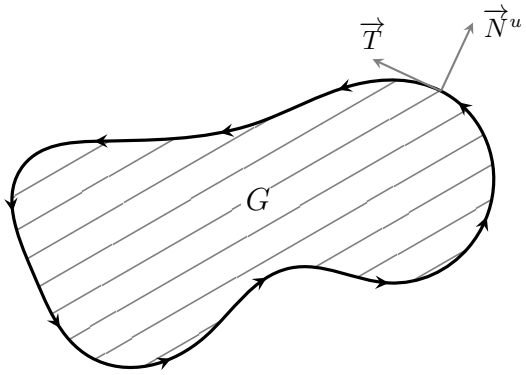

### 3.5.1 Proof Greens theorem



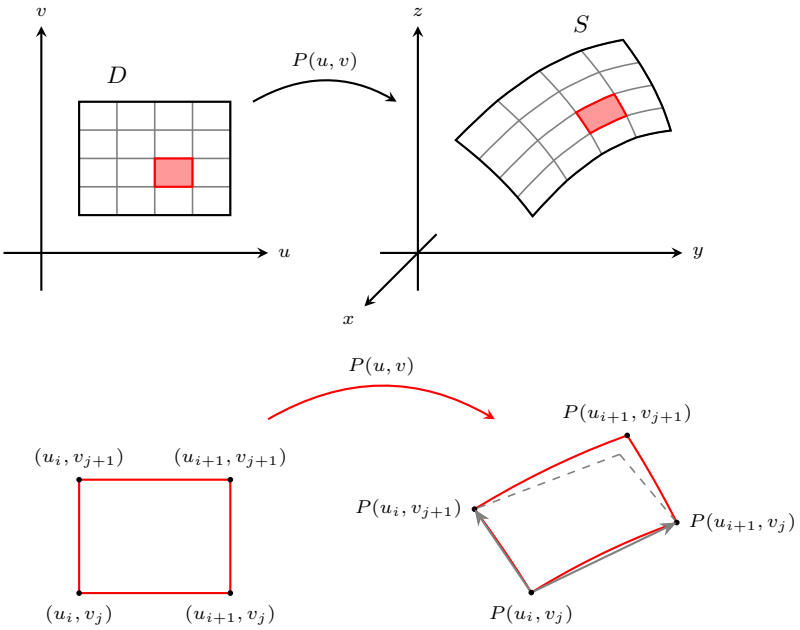
### 3.5.2 Union of normal spaces



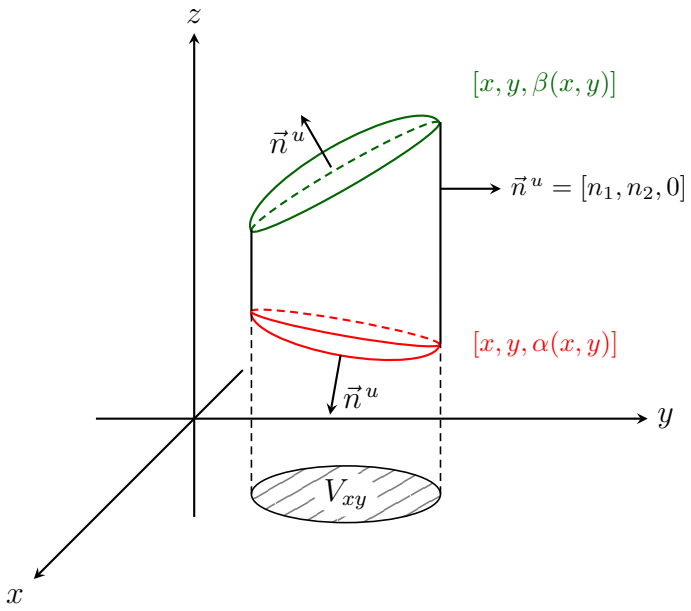

### 3.5.4 Alternative formulation Greens theorem



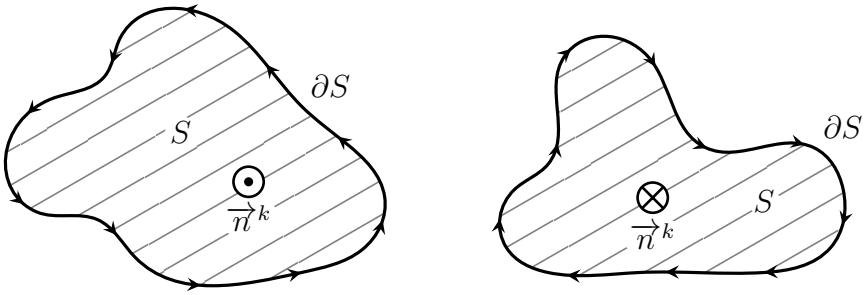
## 4.1 Surface integral of a scalar field



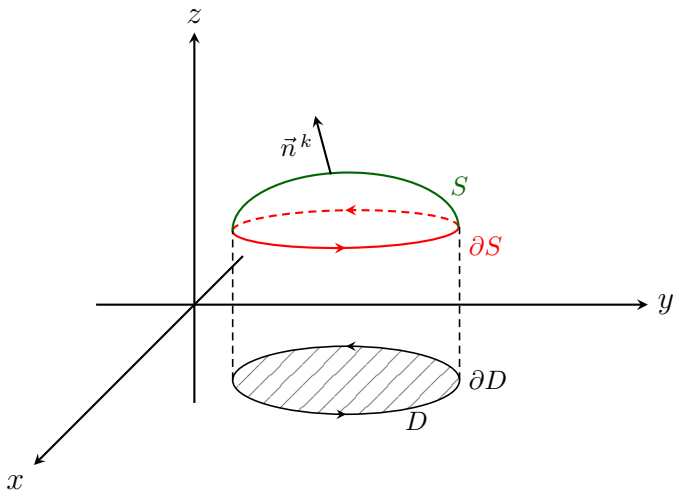

### 4.4.1 The divergence theorem



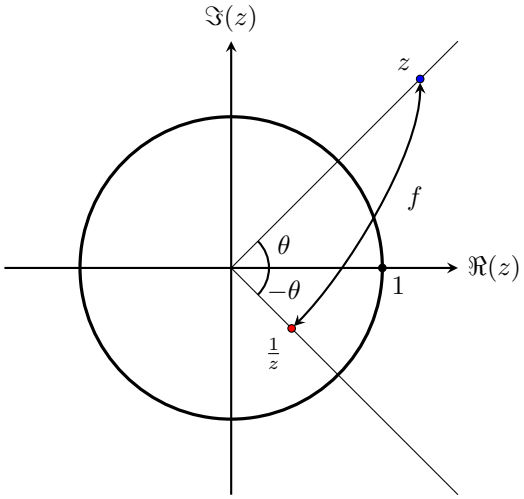
### 4.6.0 The corkscrew rule



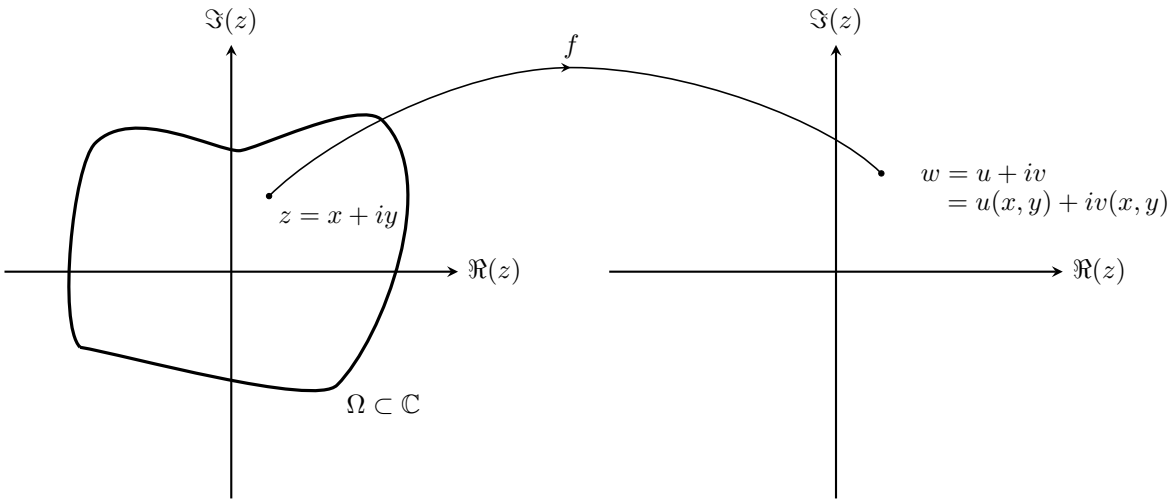

### 4.6.1 Stokes theorem



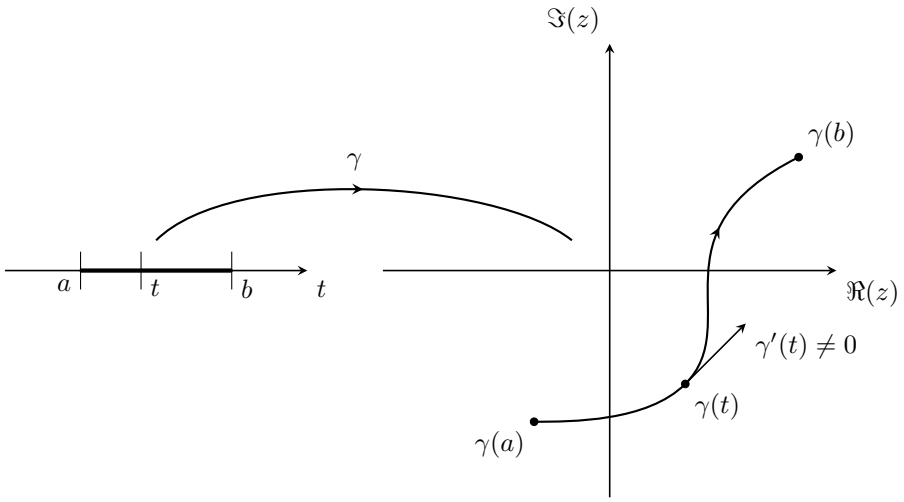
## 5.1 Inverse function



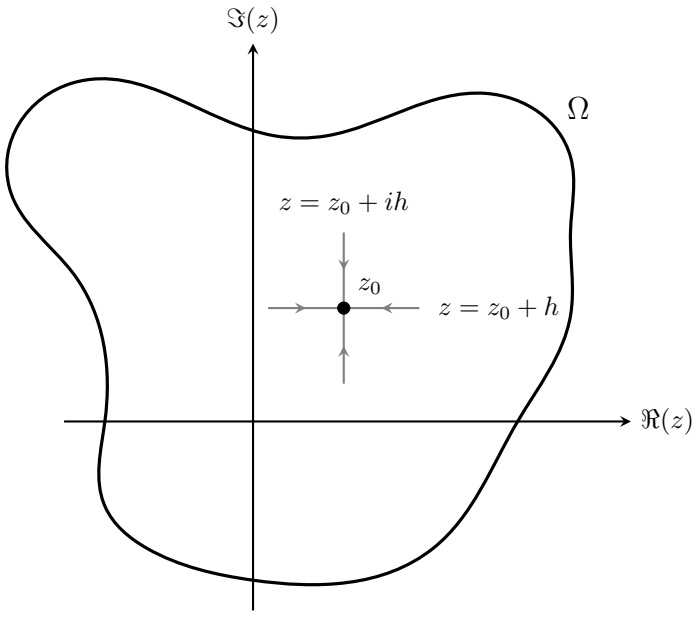

## 5.1 Complex function



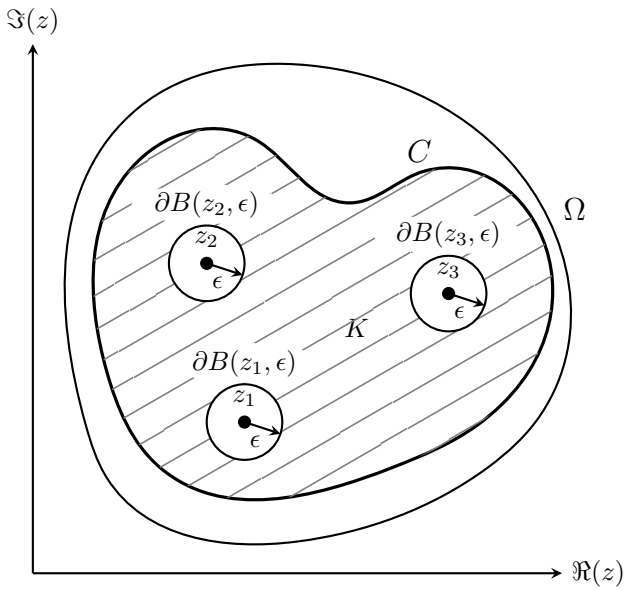
## 5.2 Complex line integral



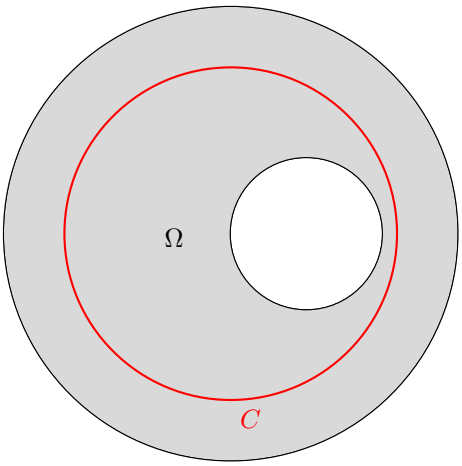

### 6.2.1 Complex derivative



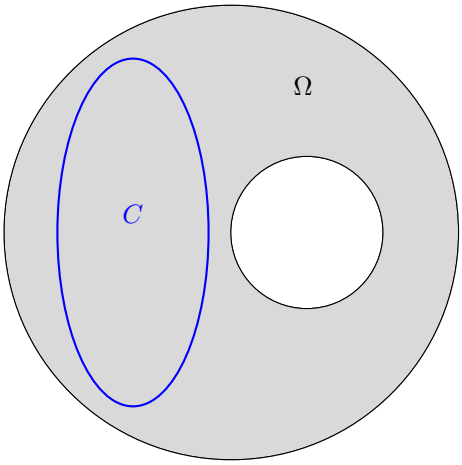
## 6.3 Cauchy Goursat theorem for multiply connected domains



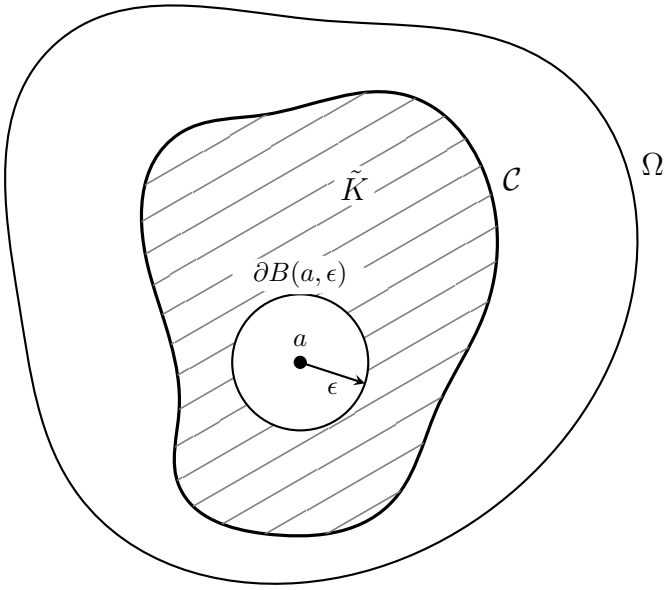

## 6.3 Contour non simply connected



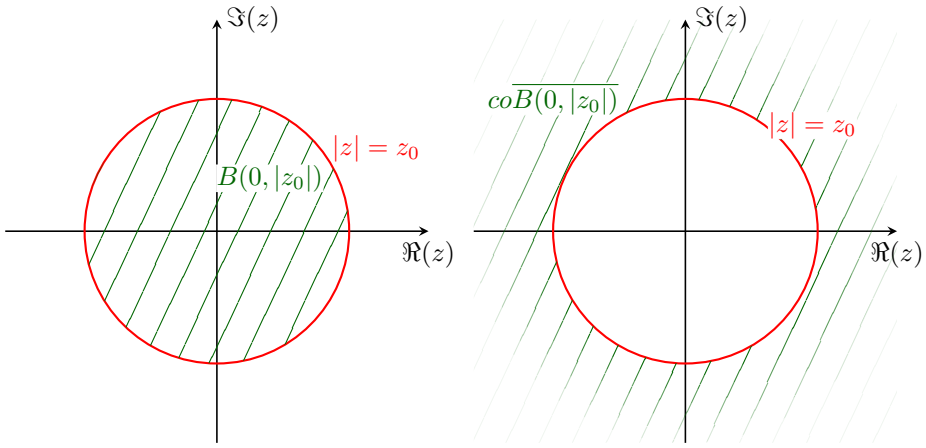
## 6.3 Contour simply connected



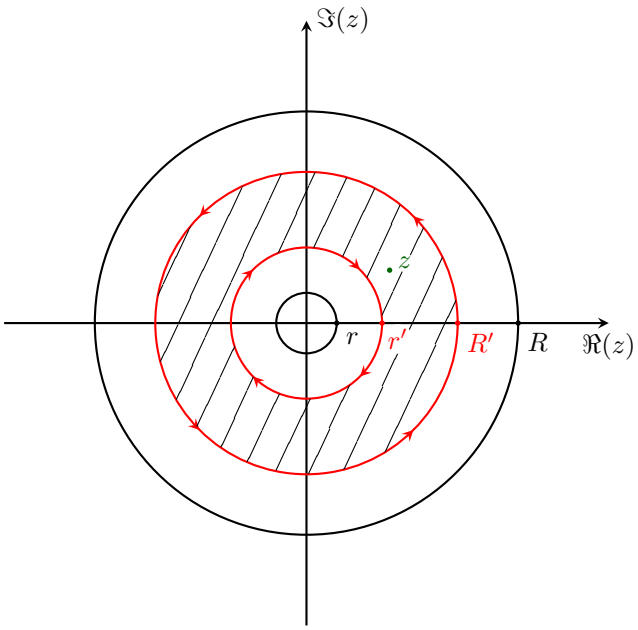

### 6.3.3 Proof integral formula Cauchy



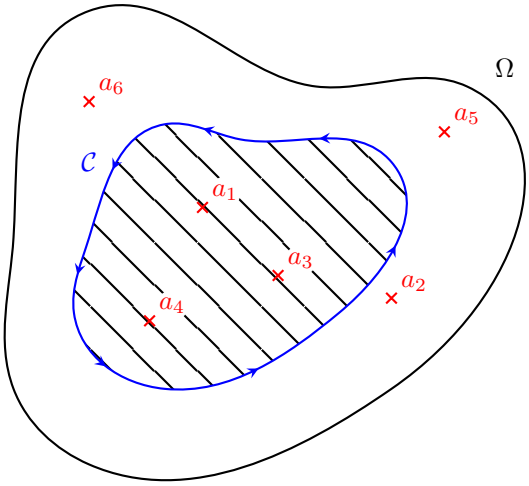
### 7.2.4 Theorem convergence regions positive and negative power series



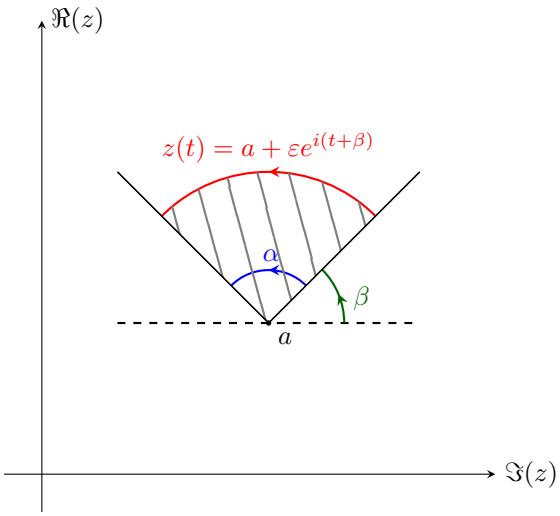

### 8.2.1 Proof theorem Laurent series



### 8.5.6 Residue theorem for region with multiple singularities




## 9.3 Estimation lemmas



## 9.5 Summation of series