

第三次作业

请于十月二十二日周二 (校历第七周) 当堂上交本次作业。只收纸质版。晚交不收。可以与班上同学讨论合作, 请参与合作的同学共同交一份作业, 并署上所有参与者姓名。

1. Let Γ be a bounded piecewise smooth domain in \mathbb{R}^2 with oriented boundary curve Γ . Also let X be an open neighborhood of $\bar{\Omega}$ in \mathbb{R}^2 , and let $g, h \in C^1(X)$. Then

$$\int_{\Gamma} gdx + hdy = \int_{\Omega} \left(\frac{\partial h}{\partial x} - \frac{\partial g}{\partial y} \right) dx dy.$$