

高微第九週作業

**Rudin : p.239 # 6, 7, 9, 11, 13, 14.**

**Extra problems :**

1. Let  $f(x, y) = \begin{cases} \frac{x^2 y}{x^2 + y^2}, & (x, y) \neq (0, 0) \\ 0 & , (x, y) = (0, 0) \end{cases}$ , is  $f$  differentiable in  $R^2$ ?