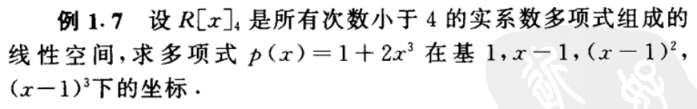
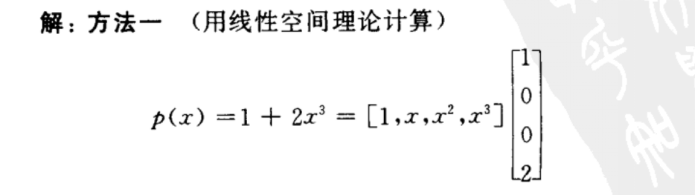
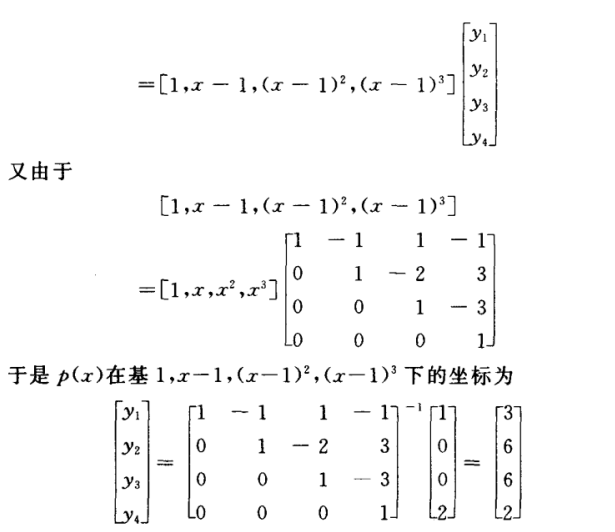
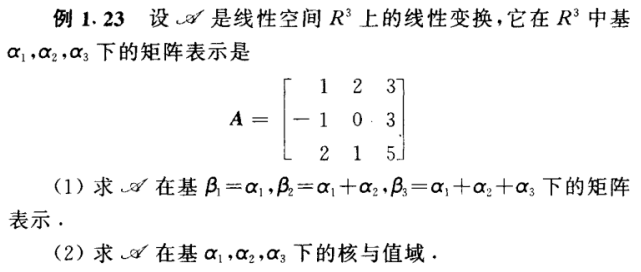
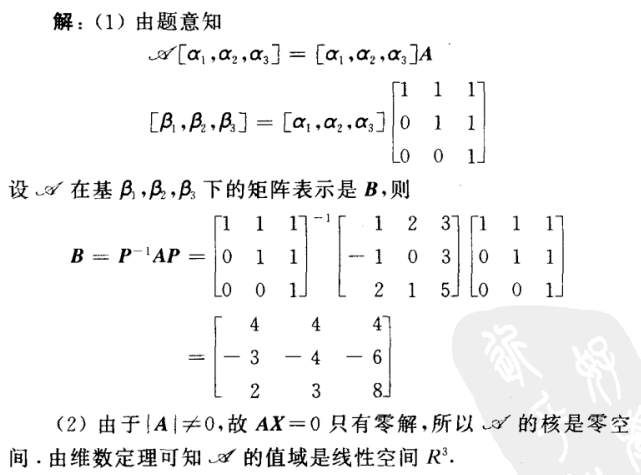
# 一 线性空间和线性变换

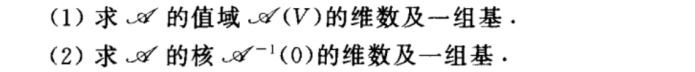
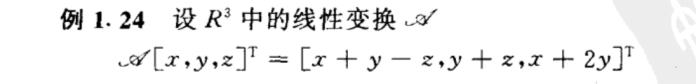








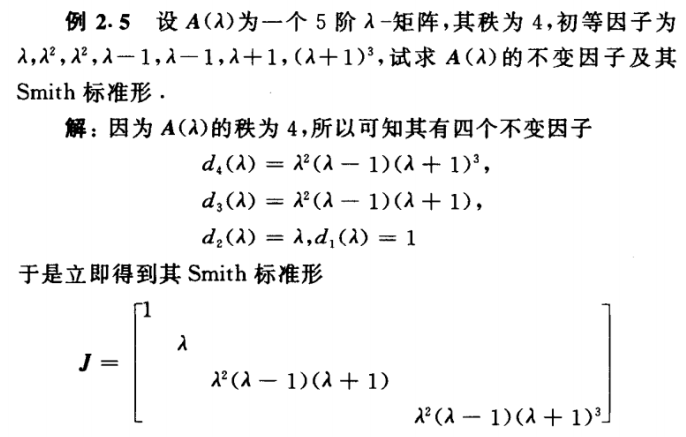
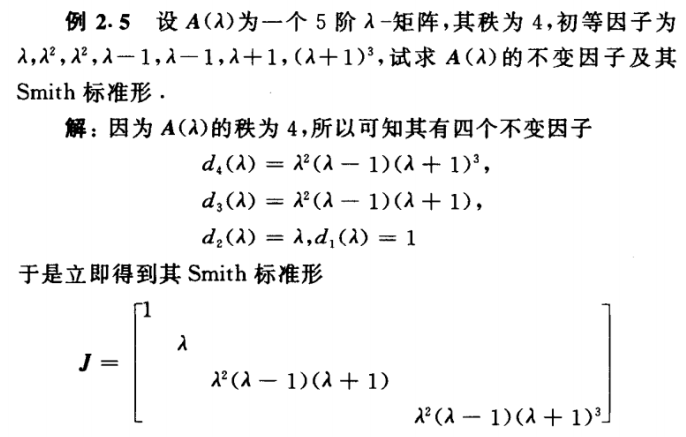
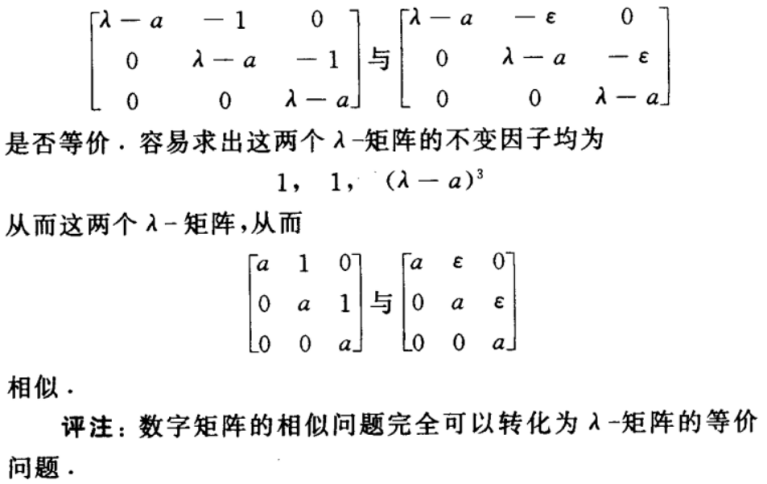
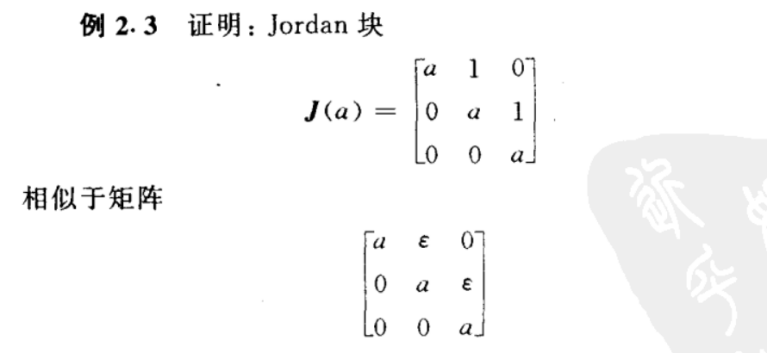
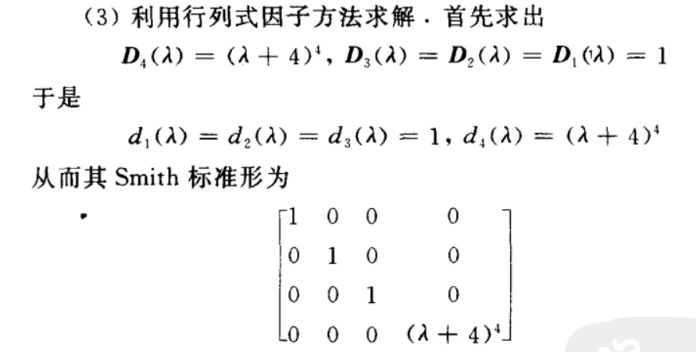
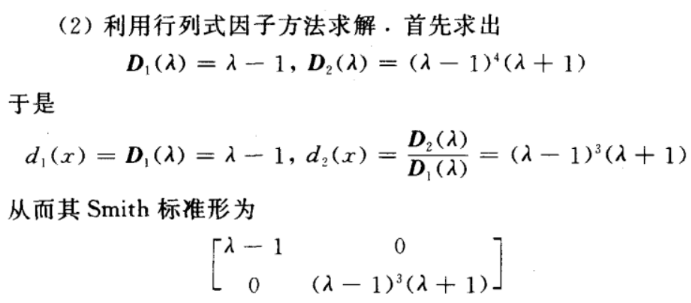
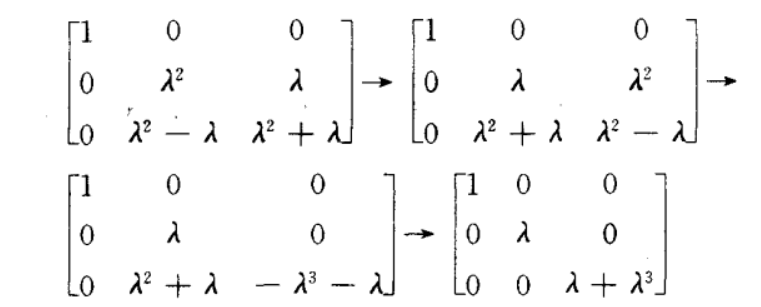
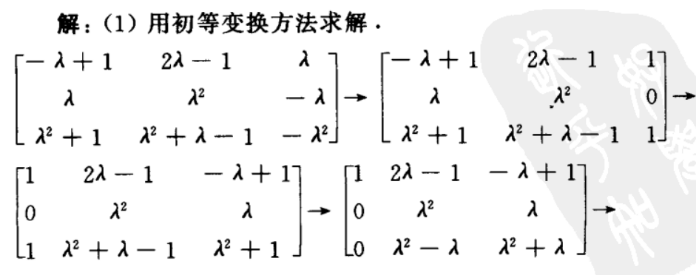
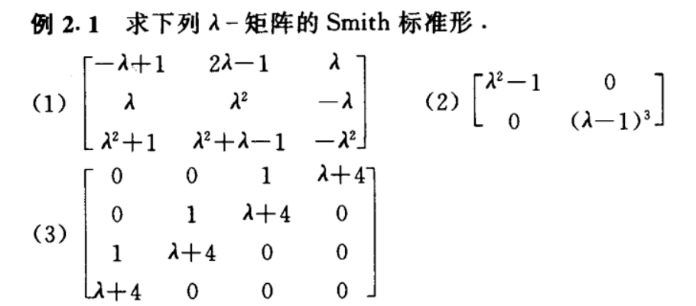




# 

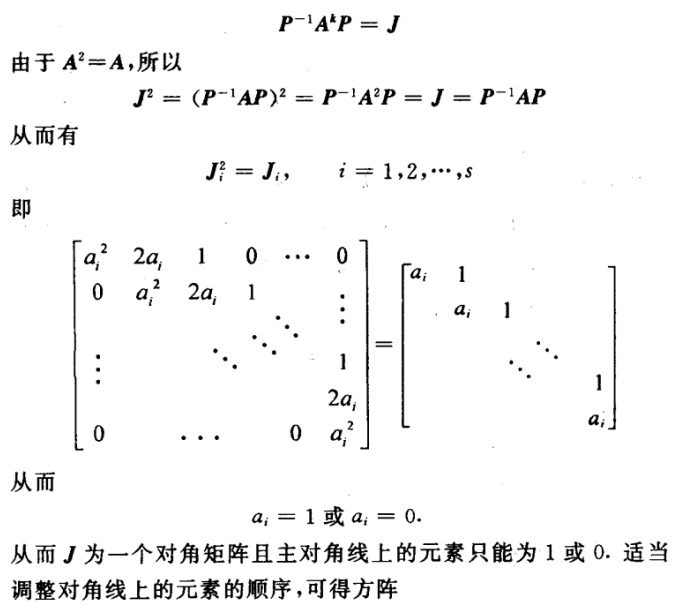
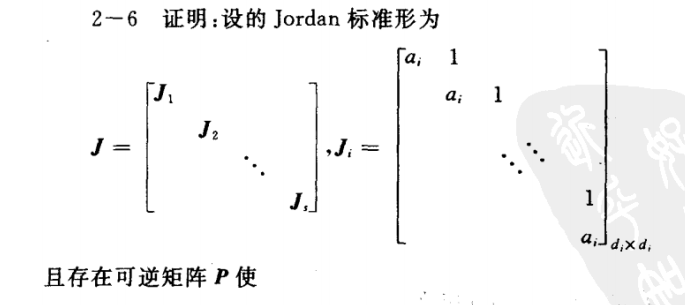
# 

# 二 矩阵标准型

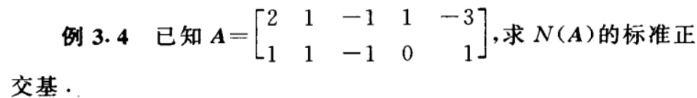


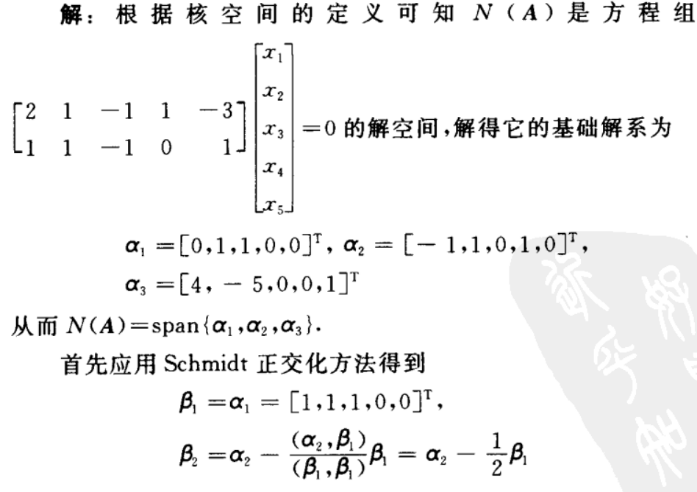


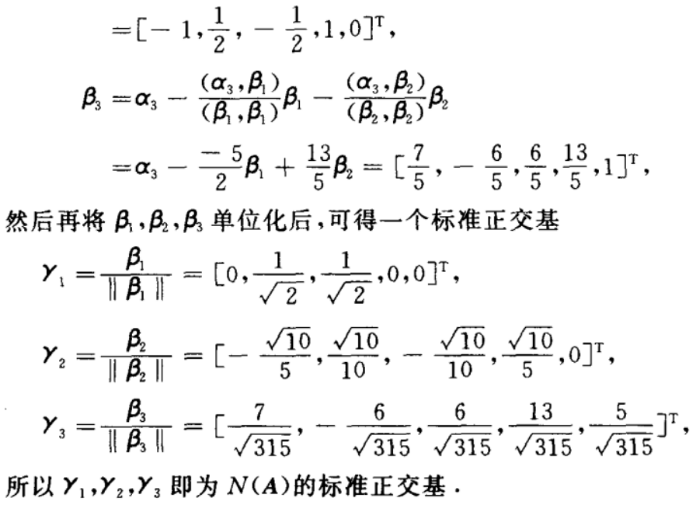
Diag(1,1,...,0,0)



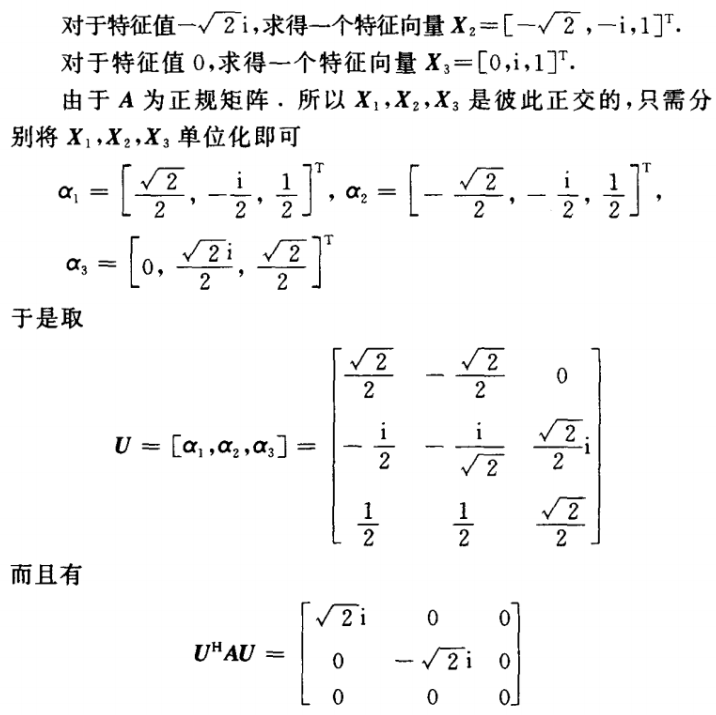
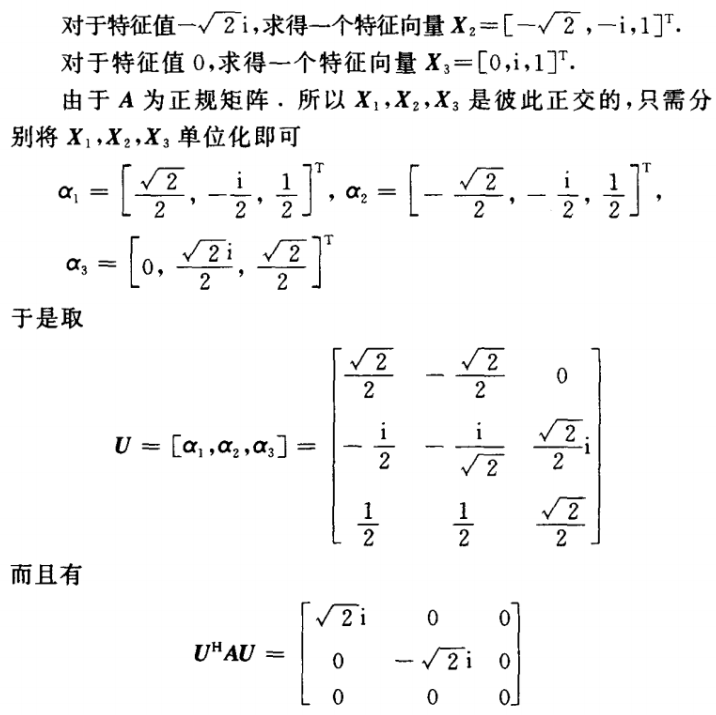
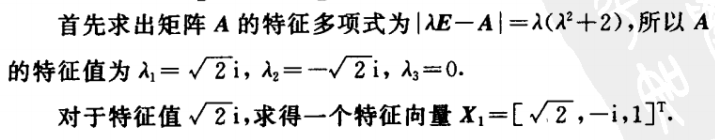
# 三 正规矩阵、H矩阵



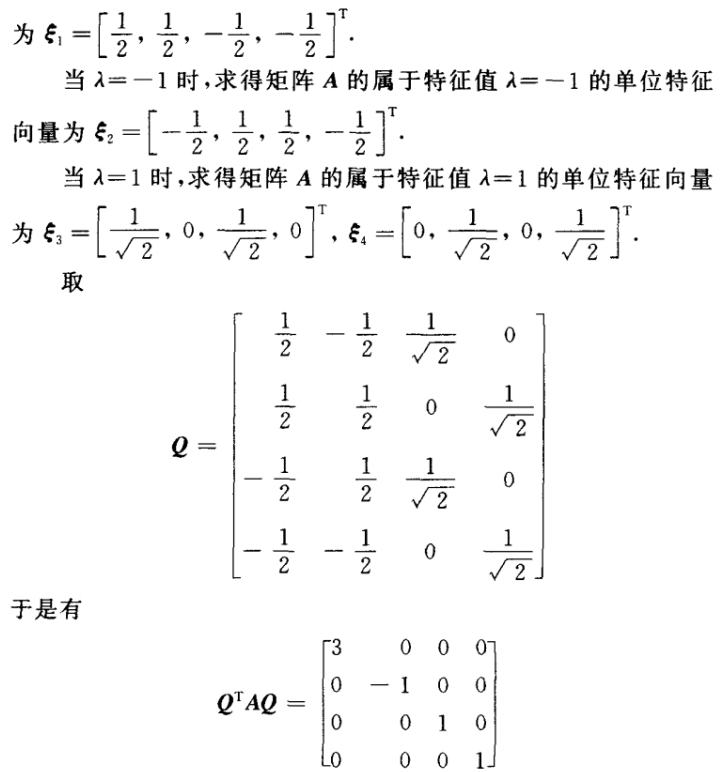
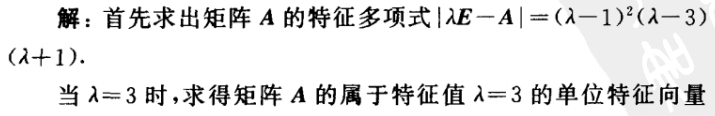




# 



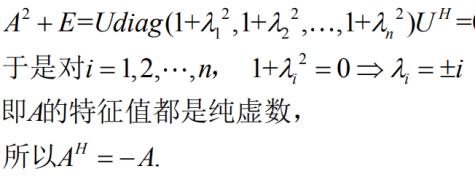
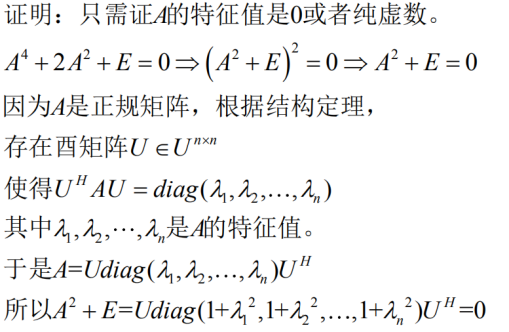
# 



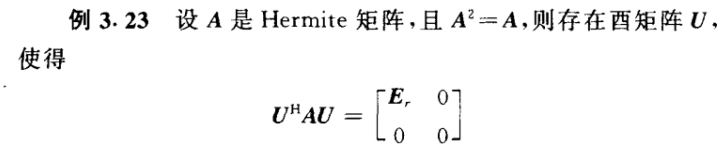
证明题：

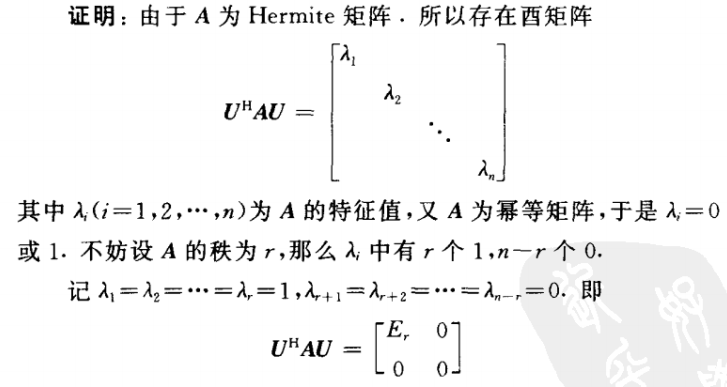
（1）A是酉矩阵的充分必要条件是A的列向量矩阵是标准正交基。（课本P103 定理3.3.1）

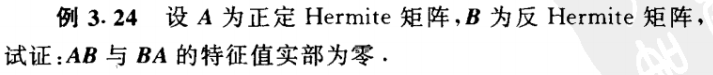
（2）正规矩阵A满足A4+2A2+E=0证明AH=-A



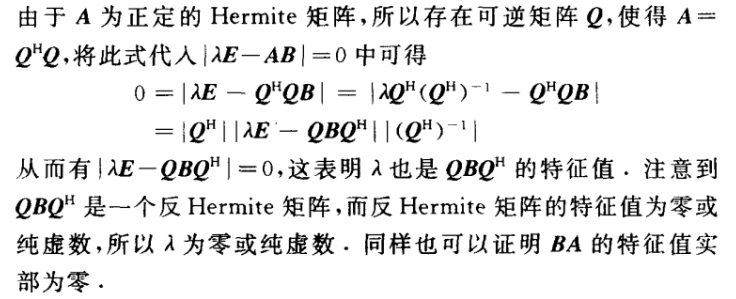
1. dimR(Φ) + dimN(Φ) = n(课本P26 定理1.5.2)

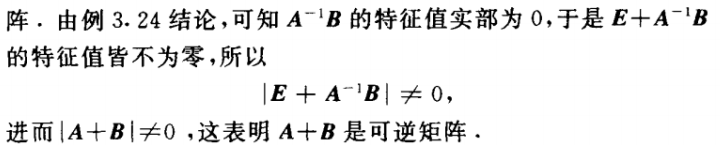
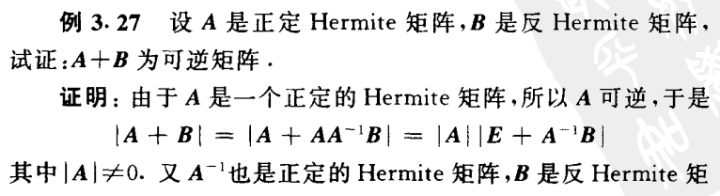
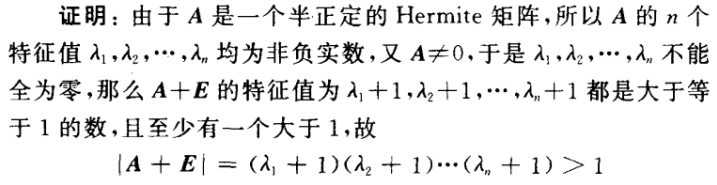
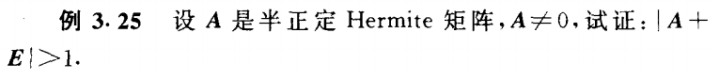


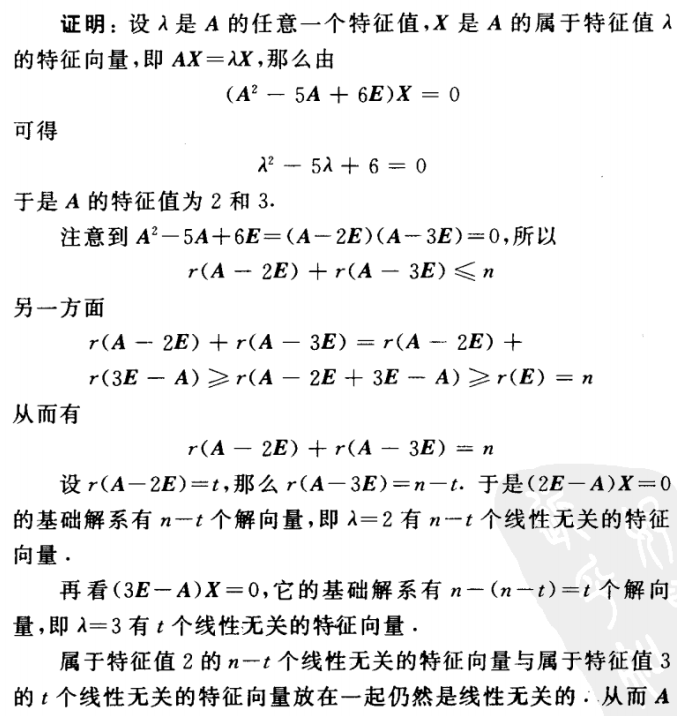
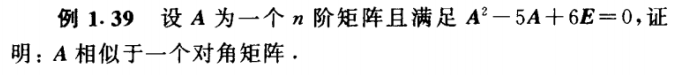




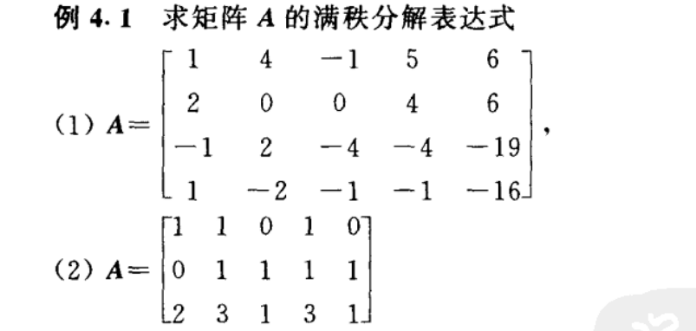


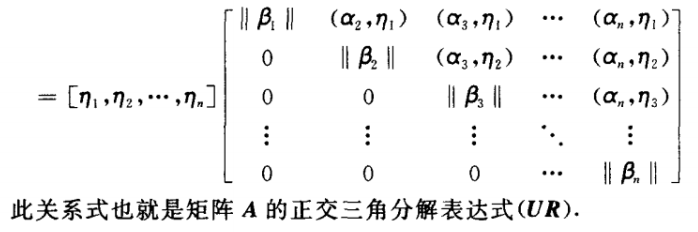
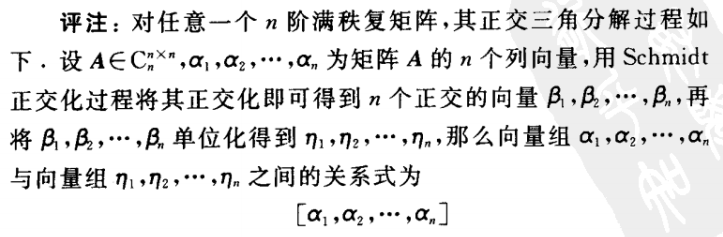
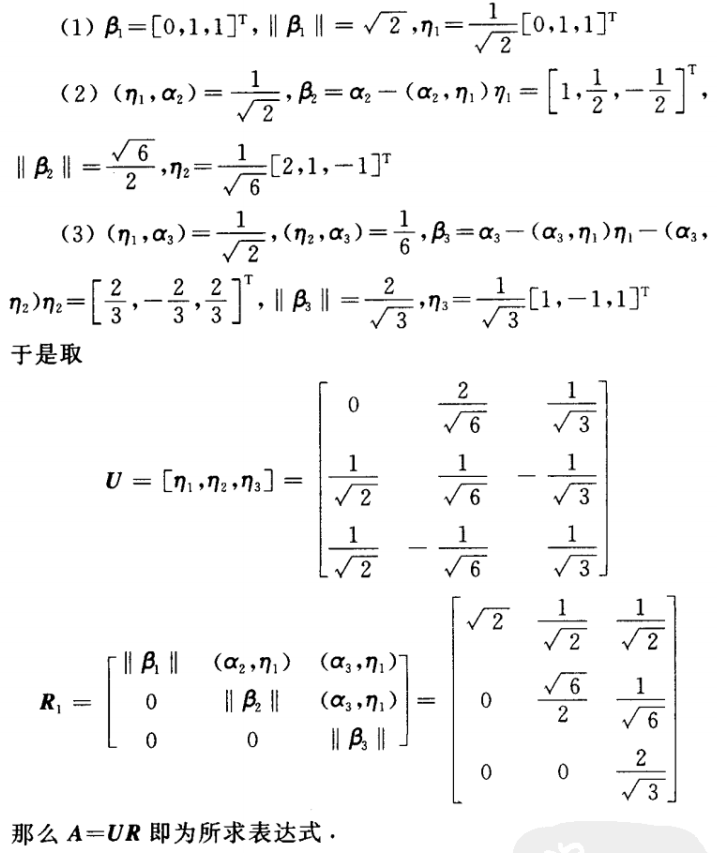
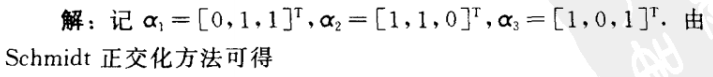
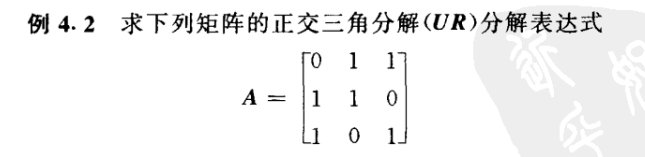
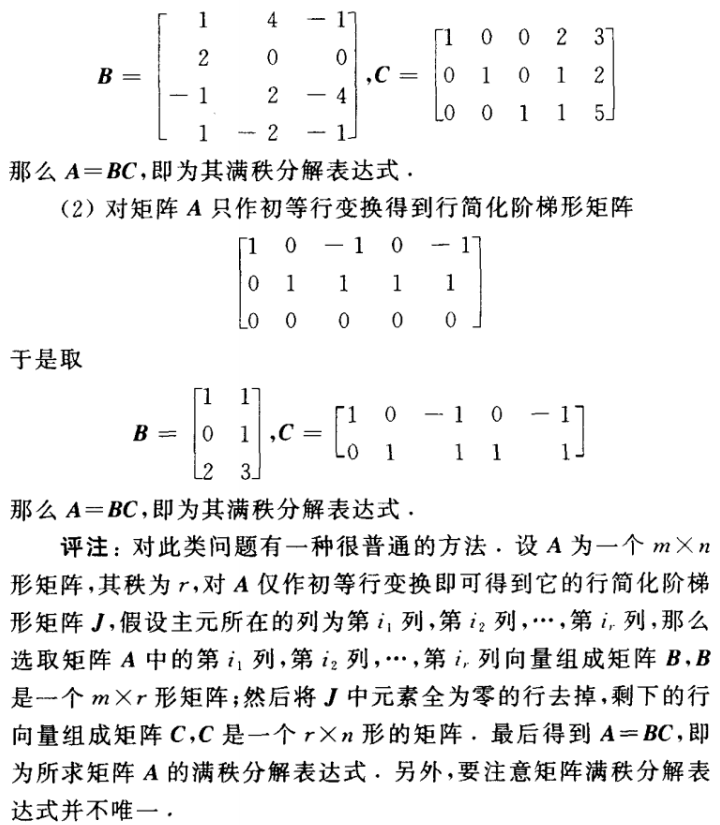
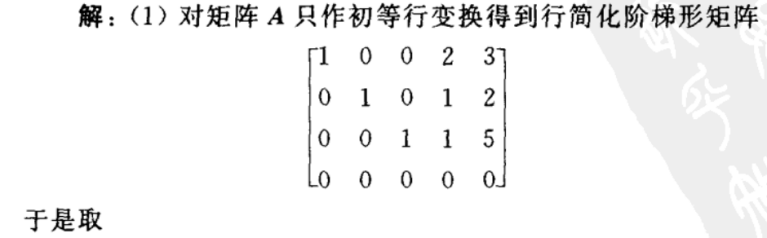


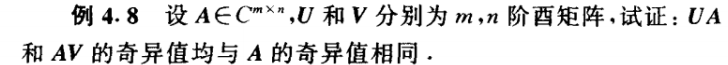


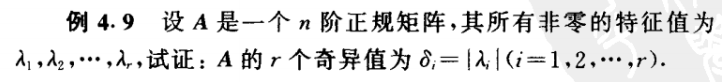
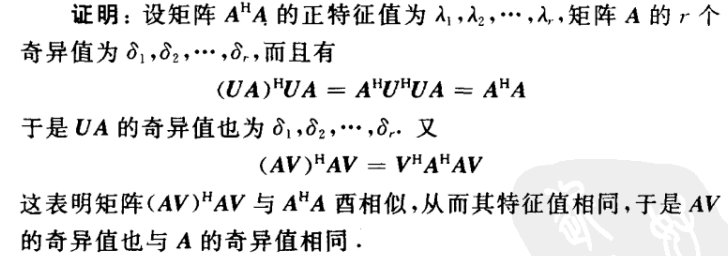


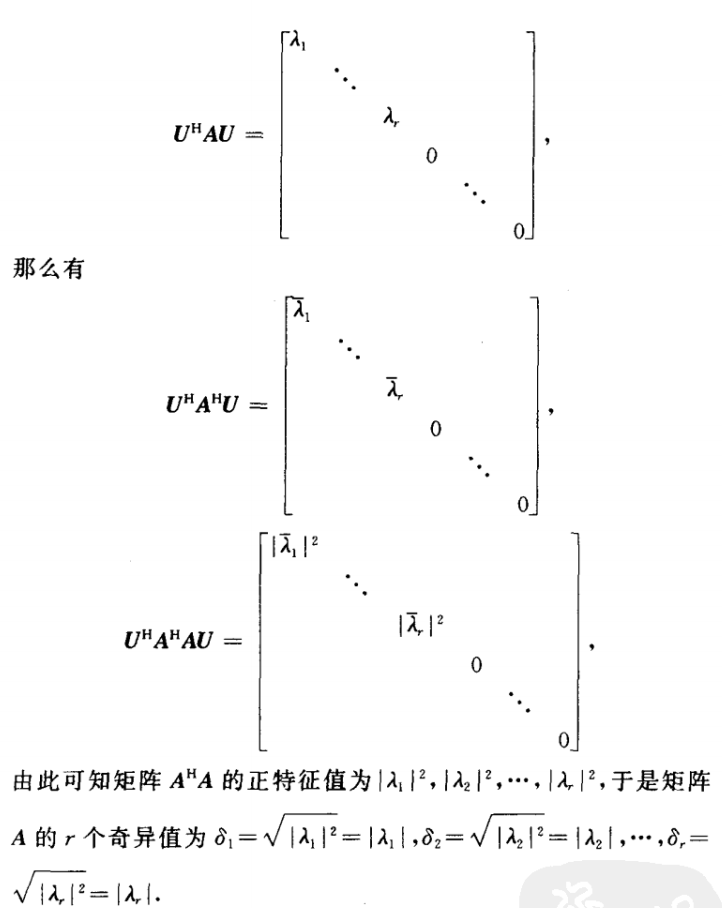
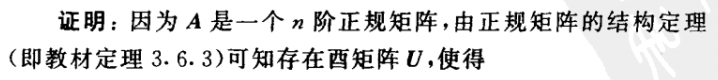
# 四 矩阵分解

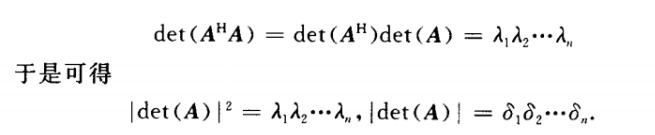
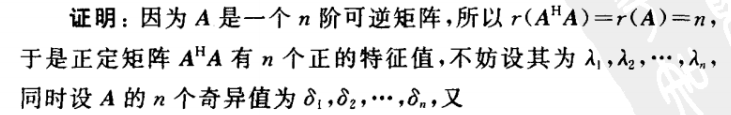
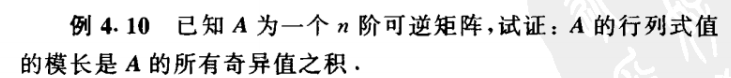


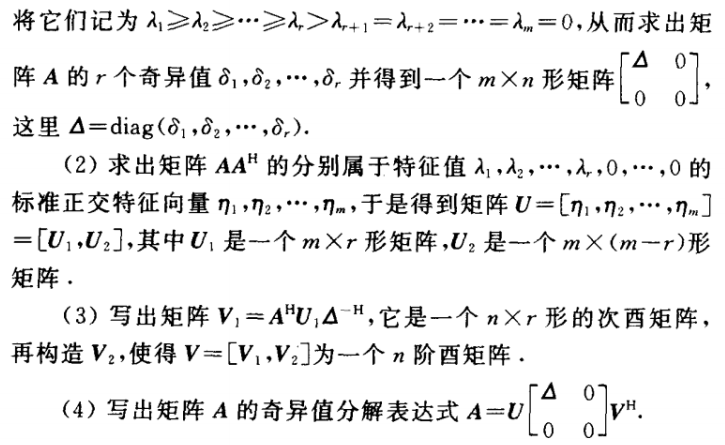
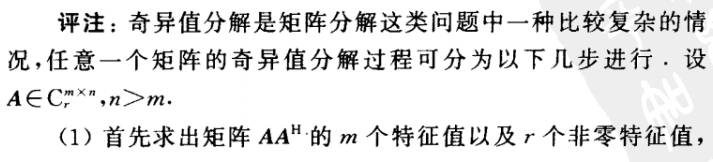
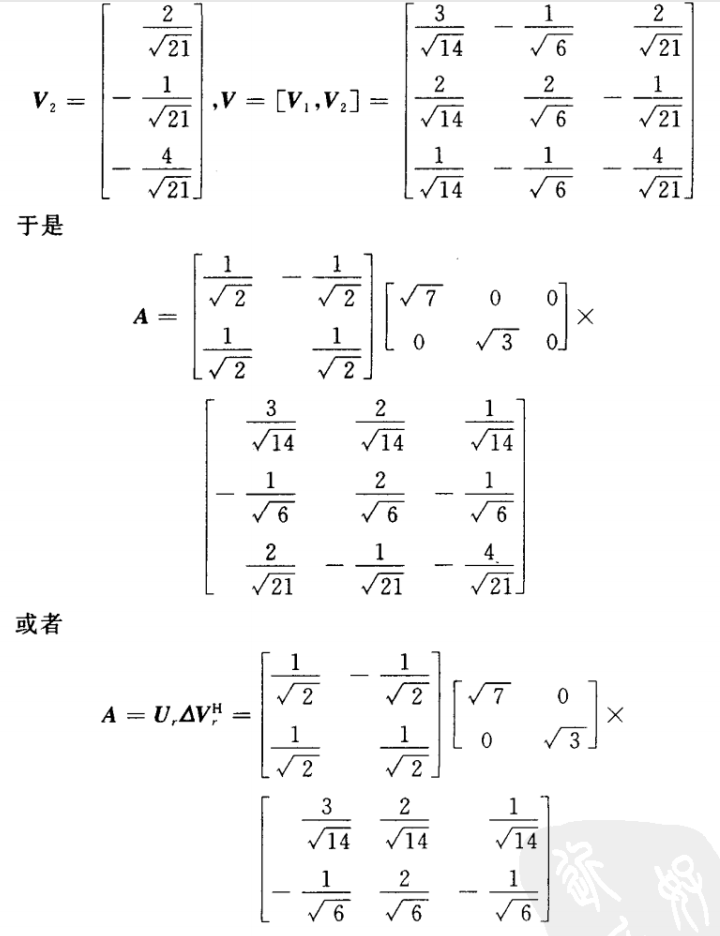
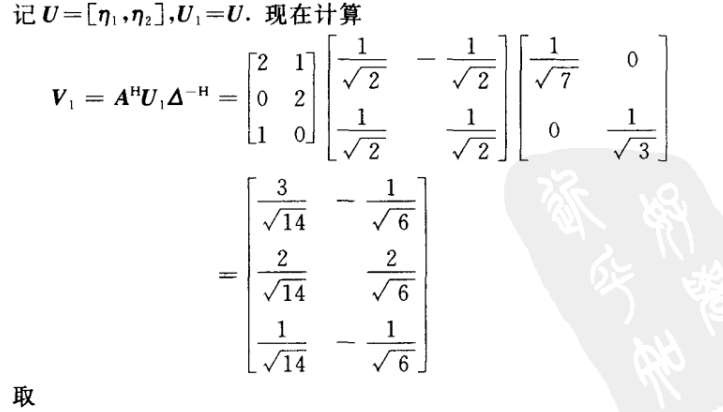
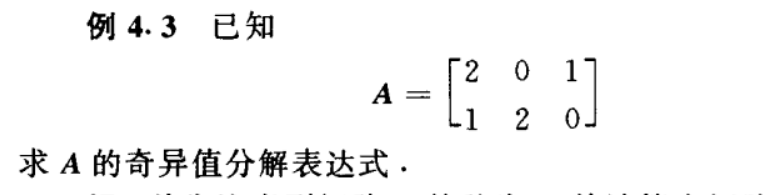






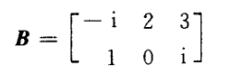


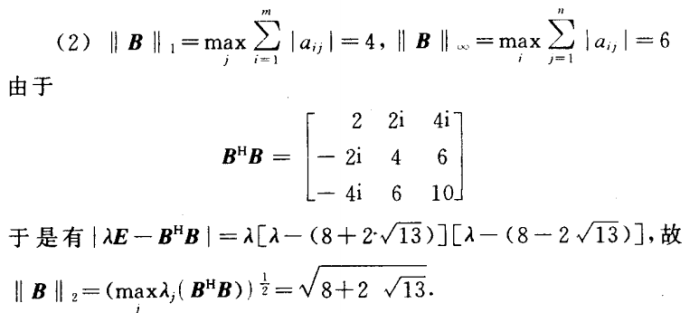


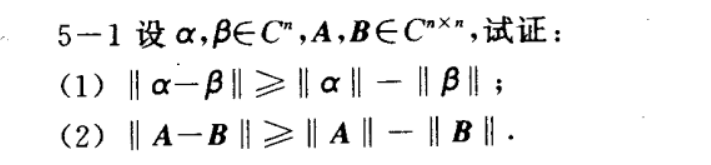


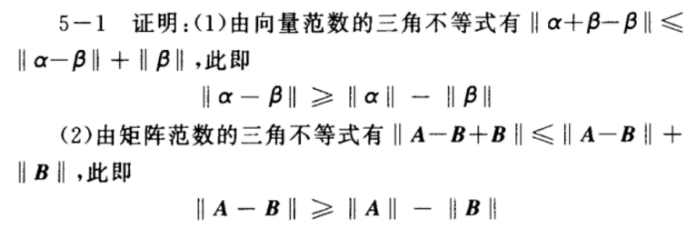
# 五 范数

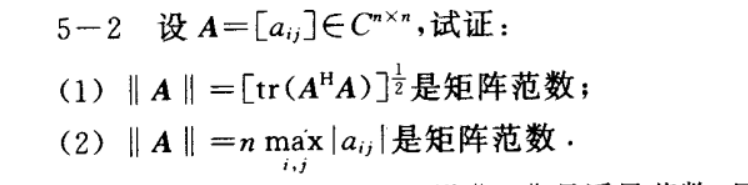


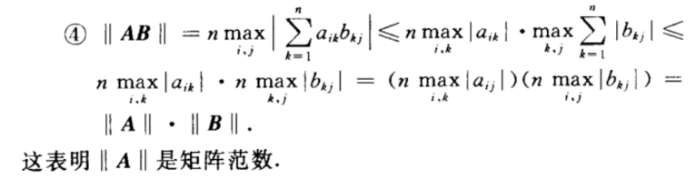
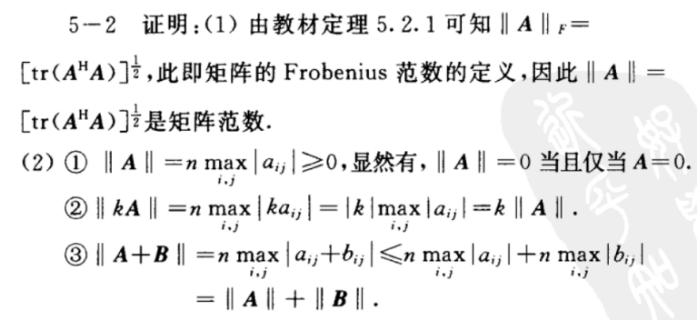


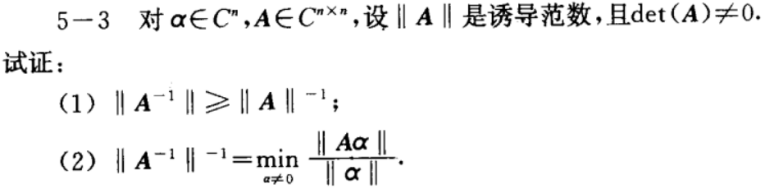


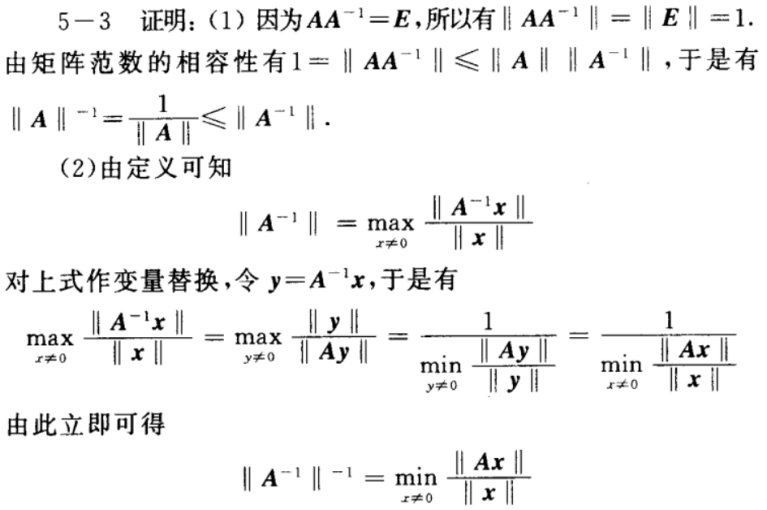


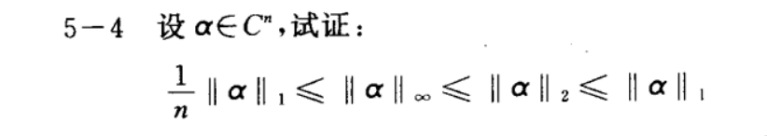


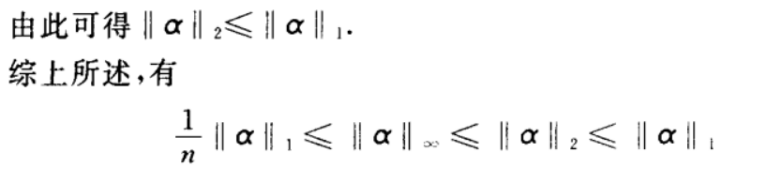
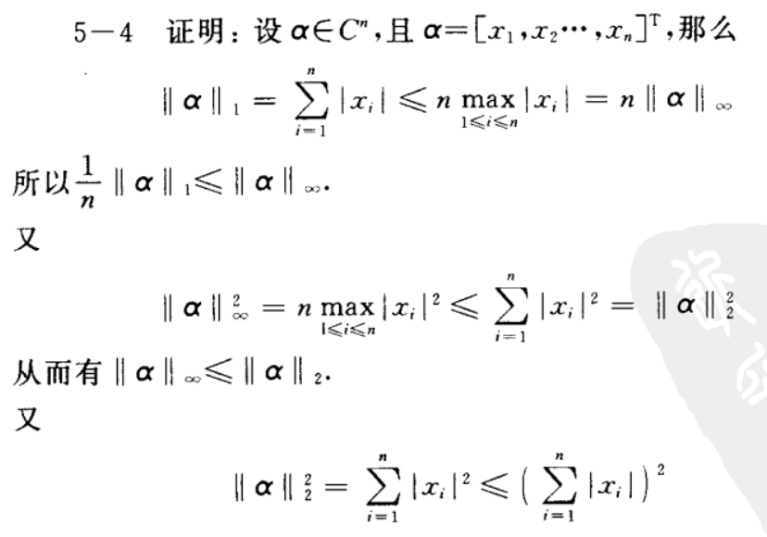


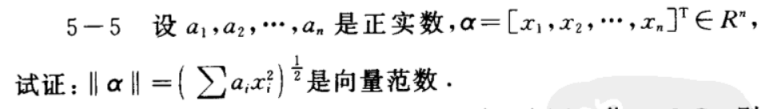


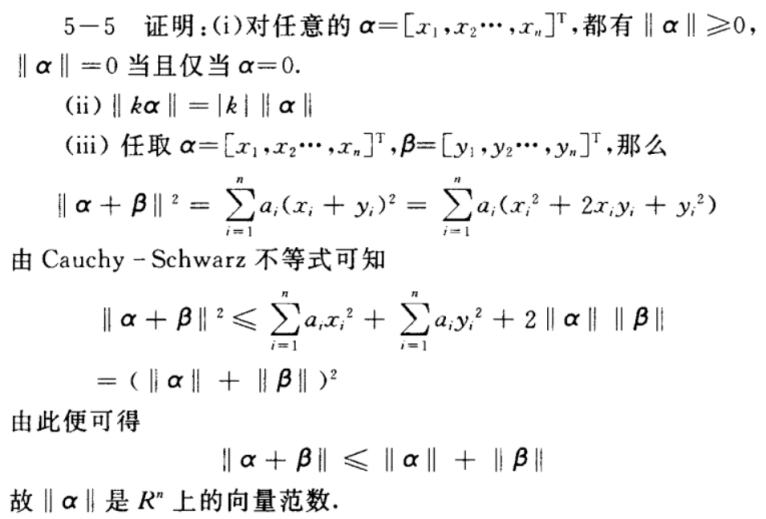












# 六 矩阵函数

