

# Exercises

11.38 [11M] Show that

$$\|A\|_{1,1} = \max_{1 \leq j \leq n} \sum_{i=1}^m |A_{i,j}|,$$

$$\|A\|_{\infty,\infty} = \max_{1 \leq i \leq m} \sum_{j=1}^n |A_{i,j}| .$$