## Disclaimer

These notes have been written with the intention of being used by people who have already taken previous analysis courses in the Tripos (beyond IA Analysis). For this reason, some of the results which have been seen already in Tripos are omitted.

## 1 Basic Analysis

**Definition.** For  $A \subseteq \mathbb{R}^n$  and  $x \in \mathbb{R}^n$ , define

$$d(x, A) = \inf\{d(x, a) = a \in A\}.$$