On note $\mathbb{K} := \mathbb{R}$ ou $\mathbb{C}$.

1 Bolzano-Weierstraß

$$\forall u \in \mathbb{K}^{\mathbb{N}},\ (\exists K \in \mathbb{R}_+,\ |u| \leq K) \implies (\exists \phi \in \mathbf{Inc}(\mathbb{N},\ \mathbb{N}),\ \lim_{\infty} u \circ \phi \in \mathbb{R})$$

2 Bornes atteintes

$$\forall a < b \in \mathbb{R}, \forall f \in \mathcal{C}([a,\ b],\ \mathbb{R}),\ (\exists K \in \mathbb{R}_+,\ |f| \leq K) \wedge \left(\exists i,\ s \in D_f,\ \begin{cases} f(i) & = \inf f \\ f(s) & = \sup f \end{cases} \right)$$

2.1 Sur $\mathbb{C}$

$$\forall a < b \in \mathbb{R},\ \forall f \in \mathcal{C}([a,\ b],\ \mathbb{C}),\ \exists K \in \mathbb{R}_+,\ |f| \leq K$$

"Atteindre ses bornes" n'a plus de sens dans $\mathbb{C}$.

2.2 Image d'un segment

$$\forall [a,\ b] \subset \mathbb{C},\ \forall f \in \mathcal{C},\ f^{\rightarrow}([a,\ b]) \subset \text{segments}(\mathbb{C})$$

3 Heine

$$\forall a < b \in \mathbb{R},\ \mathcal{C}([a,\ b],\ \mathbb{R}) \subset \mathcal{UC}$$