

Exercises

18.12 [1M5] Prerequisites: [OG0].

Given $z \in \mathbb{C}$, show that

$$\lim_{N \rightarrow \infty} \left(1 + \frac{z}{N}\right)^N = e^z \quad (18.12)$$

and that the limit is uniform on compact sets.

Solution 1. [1M6]