24.17 [1VH]

- Show that there is an unique continuous function $f : (-1, 1) \to \mathbb{R}$ that satisfies

$$f(x) = x \cos(f(x)) \ .$$

- Fixed a, b, show that there exist a finite number of continuous $f : (-a, b) \to \mathbb{R}$ satisfying

$$f(x) = x \cos(f(x)) \ \forall x \in (a, b).$$

Solution 1. [1VJ]