Remark 17.36. *[1FC]Attention! The symbols "small o" and "big O" are used differently from other symbols of mathematics. In fact, they can represent different functions, even in the same context! For example, if we write*

$$\sin(x) = x + o(x) \quad , \quad \cos(x) = 1 + o(x)$$

the two symbols "o(x)" on the right and left represent different functions. Particular care must therefore be taken in showing the properties used in the calculus. When many of such symbols are present, it is advisable to replace them with placeholder function symbols, as in the following examples.