

## Exercises

3.258 [04B] Consider the set  $\mathbb{N}^{\mathbb{N}}$  of functions  $f : \mathbb{N} \rightarrow \mathbb{N}$ ; and the subset  $\mathcal{A}$  of  $f$  of functions that can be defined using an algorithm, written in a programming language of your choice (also assuming that the computer that is running this algorithm has potentially unlimited memory) and such that for each choice  $n \in \mathbb{N}$  in input the algorithm must finish and return  $f(n)$ . Compare the cardinalities of  $\mathbb{N}^{\mathbb{N}}$  and  $\mathcal{A}$ .

[ [04C] ]