

## Exercises

E3.53 [020] Prerequisites: [024] .(Solved on 2022-10-25) Given  $A$  a non-empty set show that there is a bijection  $f : A \rightarrow B$  between  $A$  and a set  $B$  disjoint from  $A$ .

More generally, let  $I$  a non-empty set of indexes, and  $A_i$  a family of non-empty sets indexed by  $i \in I$ ; <sup>a</sup> show that there are bijections  $f_i : A_i \rightarrow B_i$ , where the sets  $B_i$  enjoy  $\forall i \in I, \forall j \in I, B_i \cap A_j = \emptyset$  and for  $j \neq i$  also  $B_i \cap B_j = \emptyset$ .

**Solution 1.** [021]

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<sup>a</sup>Cf. [01M]