

## Exercises

E3.294 [04M] Prerequisites: [02S], [04G]. Show that a set  $A$  is *Dedekind-infinity* if and only if it is infinite (according to the definition seen at the beginning of the chapter).

**Solution 1.** [04N]

Note: According to [?], the previous equivalence cannot be proved using only the axioms of ZF (Zermelo–Fraenkel without the axiom of choice); the previous equivalence can be proved using the axioms of ZFC (Zermelo–Fraenkel with the axiom of choice); but its validity in ZF is weaker than the axiom of choice.

[1ZC]