

## Exercises

E3.55 [23W] The notation in [026] differs from the usual one, which is  $\bigcup_{i \in I} C_i$ , where  $I$  is a non-empty family of indices and  $C_i$  are sets; as seen in [1Y2].

How can you define  $\bigcup_{i \in I} C_i$  using the axiom of union presented [026]? (Sugg. re-read the note [01M])

Eventually you should obtain

$$\forall x, x \in \bigcup_{i \in I} C_i \iff \exists i \in I, x \in C_i \quad . \quad (3.56)$$

**Solution 1.** [027]