3.2.2 Zermelo–Fraenkel axioms [241]

We now briefly discuss the axioms of Zermelo–Fraenkel set theory.

ZF:1 Axiom of extensionality, already seen above in [1Y8].

ZF:2 [014]

ZF:3 [1Y3]

ZF:4 [026]

ZF:5 [1Y1]

ZF:6 Axiom of infinity (see [243])

ZF:7 [1Y0]

ZF:8 Axiom of good foundation, or regularity (see [01R])

ZF:9 Axiom of replacement

(We have omitted the definitions of *"Axiom of replacement"*; you can find it in Chap.1 Sec.16 in [**?**] or Chap. 1 in [**?**]).

A further axiom is the *Axiom of Choice*; it will be discussed in Sec. [23R].

Remark 3.54. *[2DX]*

Remark 3.55. *[01M]*

Exercises

E3.56 [23W]

E3.57 [23T]

E3.58 [252]

E3.59 [247]

E3.60 [028]

E3.61 [248]

E3.62 [1W4]

E3.63 [023]

E3.64 [1Y9]

E3.65 [01N]

E3.66 [1YD]

E3.67 [029]

E3.68 [01R]

E3.69 [01W]

E3.70 [01Y]

E3.71 [020]

E3.72 [022]

E3.73 [024]

Remark 3.74. [27F]