3.4.1 Direct and filtering order [2FJ]

Definition 3.113. *[06M]*

The sets $\mathbb{R}, \mathbb{N}, \mathbb{Q}, \mathbb{Z}$ endowed with their usual order relations, are filtering.

Definition 3.114. *[06N]*

Obviously a filtering order is direct.

Remark 3.115. *[0NB]*

Definition 3.116. *[06P]*

Definition 3.117. *[231]*

Exercises

E3.118 [06Q]

E3.119 [06S]

E3.120 [06V]

E3.121 [06X]

E3.122 [232]

E3.123 [234]

A directed ordered set $(X, \leq)$ is a framework in which we can generalize the notion seen in [018].

Definition 3.124. *[06Y]*

Exercises

E3.125 [070]

E3.126 [233]

E3.127 [06Z]

E3.128 [2B2]

Further exercises on the subject are [29J],[0GQ], and in Section [29X].