8 Topology [OG5]

Let X be a fixed and non-empty set. We will use this notation. For each set $A \subseteq X$ we define that $A^c = X \setminus A$ is the **complement to A**.

Definition 8.1. *[2DY]*

Definition 8.2. *[OG6]*

Definition 8.3. *[OG7]*

Definition 8.4. *[OG8]*

Definition 8.5. *[2F6]*

Further informations on these subjects may be found in Chap. 2 of [21] or in [15].

Remark 8.6. *[2DH]*

Exercises

E8.7 [OG9]

E8.8 [OGB]

E8.9 [OGC]

E8.10 [OGD]

E8.11 [OGF]

E8.12 [OGH]

E8.13 [OGJ]

E8.14 [OGM]

E8.15 [OGQ]

E8.16 [OGS]

8.1 Neighbourhood, adherent point, isolated point, accumulation point

[29V]

8.2 Examples

[2BD]

8.3 Generated topologies

[2BJ]

8.4 Compactness

[2BF]

8.5 Connection

[2BG]

8.6 Nets

[2B6]

8.7 Continuity and limits

[2B8]

8.8 Bases

[2B5]

8.9 First- and second-countable spaces

[2BK]

8.10 Non-first-countable spaces

[2BM]