

Note quizzes are cumulative

Quiz 3 - ?

Section 3

Define equivalence relation.

A relation $<$ on a set A is called a simple order (or linear order or order relation) if
a is an immediate predecessor of b (or b is an immediate successor of a) if

The dictionary order relation on $A \times B$ is

X has the least upper bound property if

X has the greatest lower bound property if

Section 10

An ordered set $(A, <)$ is well-ordered if

Give an example of a countable well-ordered set.

Chapter 2

Define the following:

Subbasis

Topology generated by subbasis \mathcal{S}

Standard topology on \mathbf{R}

Lower limit topology on \mathbf{R}

Discrete topology

Indiscrete topology

co-finite topology (= finite complement topology)

co-countable topology (= countable complement topology)

Order topology