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 of 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 $S$

Standard topology on $\mathbb{R}$

Lower limit topology on $\mathbb{R}$

Discrete topology

Indiscrete topology

co-finite topology ( = finite complement topology)

co-countable topology ( = countable complement topology)

Order topology