Quiz 2 - ?

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:

Basis

Topology generated by a basis $\mathcal{B}$

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

Quiz 4? - ?

Section 3

Define partition.
How does an equivalence relation determine a partition.
How does a partition determine an equivalence relation.