Questions for quiz 2 - ?

Define

topology

open

discrete topology

indiscrete topology = trivial topology

Basis

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

countable

uncountable

Give an example(s) of a collection of sets which is a topology.

Give an example(s) of a collection of sets which is not a topology.

Determine which of the following are topologies.

Give examples of countable sets

Give examples of countably infinite sets

Give examples of uncountable sets

The countable union of countable sets is

The finite product of countable sets is

$\{0,1\}^\omega$ is

Does there exists a surjective map between A and $\mathcal{P}(A)$