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homeomorphism

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Synonym	topological equivalence
Synonym	topologically equivalent
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Defines	homeomorphic
Defines	autohomeomorphism
Defines	auto-homeomorphism
Defines	self-homeomorphism

A *homeomorphism* f of topological spaces is a continuous, bijective map such that f^{-1} is also continuous. We also say that two spaces are *homeomorphic* if such a map exists.

If two topological spaces are homeomorphic, they are topologically equivalent — using the techniques of topology, there is no way of distinguishing one space from the other.

An *autohomeomorphism* (also known as a *self-homeomorphism*) is a homeomorphism from a topological space to itself.