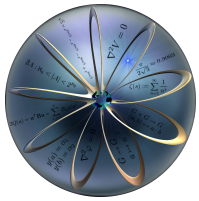

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diameter

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Let A a subset of a pseudometric space (X, d). The *diameter* of A is defined to be

$$\sup\{d(x, y) : x \in A, y \in A\}$$

whenever the supremum exists. If the supremum doesn't exist, diameter of A is defined to be infinite.

Having finite diameter is not a topological invariant.