

BEFORE YOU READ

Sets by how many elements they hold

A set is finite when its elements can be counted to an end and infinite when they cannot. The universal set is the frame for everything under consideration.

L0 Types of sets

L1 **Finite** a well-defined number of elements

$\{1, 2, 3, 4, 5\}$

L2 **Empty set** a special case of a finite set

$\emptyset$

L1 **Infinite** cannot be exhausted by counting

$\{1, 2, 3, \dots\}$

L1 **Universal** all objects under consideration; finite or infinite

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TAKEAWAY

Size is cardinality

How to compare the sizes of sets, including infinite ones, is the subject of **cardinality**.

