

BELONGINGS

Why

We want to write about objects belonging to sets.

Definition

Let A denote a set; in other words, an intangible object which has some objects as members. Let a denote an object. Suppose the object denoted by a is belongs to the set denoted by A. In this case, we write $a \in A$.

We read this sequence of symbols aloud as "a in A." The symbol \in is a stylized lower case Greek letter ε , which is a mnemonic for $\grave{\varepsilon}\sigma\tau \acute{\iota}$ which means "belongs" in ancient greek. Since in English, ε is read aloud "ehp-sih-lawn," \in is also a mnemonic for "element of".

We tend to denote sets by upper case latin letters: for example, A, B, and C. To aid our memory, we tend to use the lower case form of the letter for an element of the set. For example, let A and B denote nonempty sets. We tend to denote by a an object which is an element of A. And similarly, we tend to denote by b an object which is an element of B

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