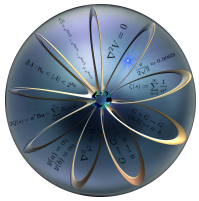

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club

Canonical name	Club
Date of creation	2013-03-22 12:53:01
Last modified on	2013-03-22 12:53:01
Owner	Henry (455)
Last modified by	Henry (455)
Numerical id	5
Author	Henry (455)
Entry type	Definition
Classification	msc 03E10
Defines	club
Defines	closed
Defines	unbounded
Defines	closed unbounded
Defines	closed set
Defines	unbounded set
Defines	closed unbounded set
Defines	club set

If κ is a cardinal then a set $C \subseteq \kappa$ is *closed* iff for any $S \subseteq C$ and $\alpha < \kappa$, $\sup(S \cap \alpha) = \alpha$ then $\alpha \in C$. (That is, if the limit of some sequence in C is less than κ then the limit is also in C.)

If κ is a cardinal and $C \subseteq \kappa$ then C is *unbounded* if, for any $\alpha < \kappa$, there is some $\beta \in C$ such that $\alpha < \beta$.

If a set is both closed and unbounded then it is a *club* set.