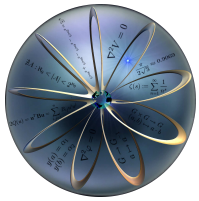

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sequence of sets convergence

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Let $\{A_n\}_{n=1}^{\infty}$ be a sequence of sets, and A a set.

The sequence $\{A_n\}_{n=1}^{\infty}$ is said to *from below* to A, (shortly, $A_n \uparrow A$ or $A_n \nearrow A$), iff

1) $A_n \subseteq A_{n+1} \quad \forall n \geq 1$

2) $A = \bigcup_{n=1}^{\infty} A_n$

The sequence $\{A_n\}_{n=1}^{\infty}$ is said to *from above* to A, (shortly, $A_n \downarrow A$ or $A_n \searrow A$), iff

1) $A_{n+1} \subseteq A_n \quad \forall n \geq 1$

2) $A = \bigcap_{n=1}^{\infty} A_n$

In both cases the less accurate notation

$$A = \lim_{n \longrightarrow \infty} A_n$$

is also used.