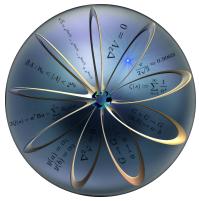

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extreme subset of convex set

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Let K a non-empty closed `http://planetmath.org/ConvexSet`convex subset of a normed vector space. A set $A \subseteq K$ is called an *extreme subset* of K if A is closed, convex and satisfies the condition : for any $x, y \in K$ and $tx + (1-t)y \in A, t \in (0,1)$ then $x, y \in A$.

For example let $K = [0,1] \times [0,1]$ then K, sides of K, included the endpoints, and $\{(1,1),(0,1),(1,0),(0,0)\}$ are extreme subsets of K.