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extreme point

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Definition. Let C be a convex subset of a vector space X . A point $x \in C$ is called an *extreme point* if it is not an interior point of any line segment in C . That is x is extreme if and only if whenever $x = ty + (1 - t)z$, $t \in (0, 1)$, $z \neq y$, implies either $y \notin C$ or $z \notin C$.

For example the set $[0, 1] \in \mathbb{R}$ is a convex set and 0 and 1 are the extreme points.

References

- [1] H. L. Royden. . Prentice-Hall, Englewood Cliffs, New Jersey, 1988