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## partition

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Let  $a, b \in \mathbb{R}$  with  $a < b$ . A *partition* of an interval  $[a, b]$  is a set of nonempty subintervals  $\{[a, x_1), [x_1, x_2), \dots, [x_{n-1}, b]\}$  for some positive integer  $n$ . That is,  $a < x_1 < x_2 < \dots < x_{n-1} < b$ . Note that  $n$  is the number of subintervals in the partition.

Subinterval partitions are useful for defining Riemann integrals.

Note that subinterval partition is a specific case of a <http://planetmath.org/Partitionpartition> of a set since the subintervals are defined so that they are pairwise disjoint.