

One-Sided Limits: General Definition

One-sided limits are differentiated as *right-hand limits* (when the limit approaches from the right) and *left-hand limits* (when the limit approaches from the left) whereas ordinary limits are sometimes referred to as *two-sided limits*. Right-hand limits approach the specified point from positive infinity. Left-hand limits approach this point from negative infinity.

The right-handed limit:

$$\lim_{x \rightarrow a^+} f(x) = L$$

The left-handed limit:

$$\lim_{x \rightarrow a^-} f(x) = L$$