Let	A	is said to	if for all	there exists	such that if	then
	sequence (x_n) in $\mathbb{R}$	**converge** to $x \in \mathbb{R}$	$\varepsilon > 0$	a natural number $K(\varepsilon)$	$n \geq K(\varepsilon)$	$\lvert x_n - x\rvert < \varepsilon$
	sequence (x_n) in $\mathbb{R}$	be **bounded**	—	a real number $M > 0$	$n \in \mathbb{N}$	$\lvert x_n\rvert \leq M$
	sequence (x_n) in $\mathbb{R}$	be a **Cauchy sequence**	$\varepsilon > 0$	a natural number $H(\varepsilon)$	$n, m \geq H(\varepsilon)$	$\lvert x_n - x_m\rvert < \varepsilon$
	sequence (x_n) in $\mathbb{R}$	be **contractive**	—	a constant $C, 0 < C < 1$	$n \in \mathbb{N}$	$\lvert x_{n+2} - x_{n+1}\rvert \leq C\lvert x_{n+1} - x_n\rvert$
	sequence (x_n) in $\mathbb{R}$	**tend to** $+\infty$	$\alpha \in \mathbb{R}$	a natural number $K(\alpha)$	$n \geq K(\alpha)$	$x_n > \alpha$
	sequence (x_n) in $\mathbb{R}$	**tend to** $-\infty$	$\beta \in \mathbb{R}$	a natural number $K(\beta)$	$n \geq K(\beta)$	$x_n < \beta$
$A \subseteq \mathbb{R}$	point c in $\mathbb{R}$	be a **cluster point** of A	$\delta > 0$	$x \in A, x \neq c$	—	$\lvert x - c\rvert < \delta$
$A \subseteq \mathbb{R}$ c a c.p. of A $f : A \to \mathbb{R}$	number L in $\mathbb{R}$	be a **limit of** f **at** c	$\varepsilon > 0$	$\delta > 0$	$x \in A, 0 < \lvert x - c\rvert < \delta$	$\lvert f(x) - L\rvert < \varepsilon$
$A \subseteq \mathbb{R}$ c a c.p. of A	function $f : A \to \mathbb{R}$	be **bounded on a neighborhood of** c	—	a δ-neighborhood $V_\delta(c)$ and a constant $M > 0$	$x \in A \cap V_\delta(c)$	$\lvert f(x)\rvert < M$
$A \subseteq \mathbb{R}$ c a c.p. of A	function $f : A \to \mathbb{R}$	**tend to** ∞ **as** $x \to c$	$\alpha \in \mathbb{R}$	$\delta = \delta(\alpha) > 0$	$x \in A, 0 < \lvert x - c\rvert < \delta$	$f(x) > \alpha$
$A \subseteq \mathbb{R}$ c a c.p. of A	function $f : A \to \mathbb{R}$	**tend to** $-\infty$ **as** $x \to c$	$\beta \in \mathbb{R}$	$\delta = \delta(\beta) > 0$	$x \in A, 0 < \lvert x - c\rvert < \delta$	$f(x) < \beta$
$A \subseteq \mathbb{R}$ $f : A \to \mathbb{R}$ $(a, \infty) \subseteq A$	number L in $\mathbb{R}$	be a **limit of** f **as** $x \to \infty$	$\varepsilon > 0$	$K = K(\varepsilon) > a$	$x > K$	$\lvert f(x) - L\rvert < \varepsilon$
$c \in A \subseteq \mathbb{R}$	function $f : A \to \mathbb{R}$	be **continuous at** c	$\varepsilon > 0$	$\delta > 0$	$x \in A$ and $\lvert x - c\rvert < \delta$	$\lvert f(x) - f(c)\rvert < \varepsilon$
$A \subseteq \mathbb{R}$	function $f : A \to \mathbb{R}$	be **bounded on** A	—	constant $M > 0$	$x \in A$	$\lvert f(x)\rvert \leq M$
$A \subseteq \mathbb{R}$	function $f : A \to \mathbb{R}$	be **uniformly continuous on** A	$\varepsilon > 0$	$\delta = \delta(\varepsilon) > 0$	$x, u \in A$ and $\lvert x - u\rvert < \delta$	$\lvert f(x) - f(u)\rvert < \varepsilon$
$A \subseteq \mathbb{R}$	function $f : A \to \mathbb{R}$	be a **Lipschitz function**	—	a constant $K > 0$	$x, u \in A$	$\lvert f(x) - f(u)\rvert \leq K\lvert x - u\rvert$
$c \in I \subseteq \mathbb{R}$ $f : I \to \mathbb{R}$	number L in $\mathbb{R}$	the **derivative of** f **at** c	$\varepsilon > 0$	$\delta(\varepsilon) > 0$	$x \in I, 0 < \lvert x - c\rvert < \delta(\varepsilon)$	$\left\lvert \frac{f(x) - f(c)}{x - c} - L \right\rvert < \varepsilon$
	function $f : [a, b] \to \mathbb{R}$	be **Riemann integrable** on $[a, b]$ if there exists $L \in \mathbb{R}$ s.t.	$\varepsilon > 0$	$\delta_\varepsilon > 0$	$\dot{\mathcal{P}}$ is a tagged partition of $[a, b]$ with $\lvert\lvert\dot{\mathcal{P}}\rvert\rvert < \delta_\varepsilon$	$\lvert S(f; \dot{\mathcal{P}}) - L\rvert < \varepsilon$
$A_0 \subseteq A \subseteq \mathbb{R}$ $f : A_0 \to \mathbb{R}$	sequence of functions (f_n) on A to $\mathbb{R}$	**converge uniformly on** A_0 **to** f	$\varepsilon > 0$	a natural number $K(\varepsilon)$	$n \geq K(\varepsilon)$	$\lvert f_n(x) - f(x)\rvert < \varepsilon$ for all $x \in A_0$