

Limit of a function

Let (X, d_1) and (Y, d_2) be two metric spaces.

Let $E \subseteq X$ and c be limit point of E

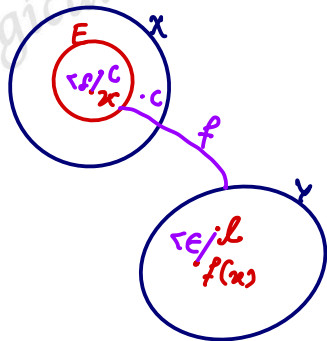
Let $f: E \rightarrow Y$ be a function.

$$\lim_{x \rightarrow c} f(x) = l \quad [l \in Y]$$

if for given $\epsilon > 0 \exists \delta > 0$

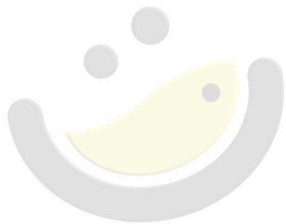
s.t. $d_2(f(x), l) < \epsilon$

When $d_1(x, c) < \delta$ $x \in E$



$$\overline{\{^E \quad \{c\} \cap \mathbb{Q}_c\}}$$

$$E \cap (c-\delta, c+\delta) = \{c\} \neq \emptyset$$



OMG { MATHS }

The poetry of logical ideas