

## REAL UNIFORM CONTINUITY

## Why

TODO

## **Definition**

TODO

## Notation

Let R denote the set of real numbers. Let  $f: R \to R$ . Then f is uniformly continuous at  $x \in R$  if

$$(\forall \varepsilon > 0)(\exists \delta > 0)(\forall x \in R)(|x - y| < \delta \implies |f(x) - f(y)| < \varepsilon)$$

for all  $y \in R$ .

