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Continuous functions on $\mathbb{R}^d$

$d = 1$

- [Types of discontinuities of functions on \$\mathbb{R}\$](#)
- [Intermedia value property of continuous functions on intervals](#)

-  **Definition.** The space of all continuous functions $[0, 1] \rightarrow \mathbb{R}$

$$(\mathcal{C}^0[0, 1], \|\cdot\|_\infty)$$

is a commutative $\mathbb{R}$ -Banach algebra by pointwise addition and multiplication, with 1.

- [Fixed points of functions \$\mathbb{R} \rightarrow \mathbb{R}\$](#)
- [Continuous functions on \$\mathbb{R}\$ with infinite limit are uniformly continuous](#)

Current note has 5 direct children and 7 total descendants.

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 - [subobjects of and functions on \$\mathbb{R}^n, S^n, \mathbb{C}^n\$ and its quotients \$\Gamma \backslash \mathbb{R}^n, \Gamma \backslash \mathbb{C}^n\$](#)
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 - $\mathcal{C}_0[0, 1]$
 - [Continuous functions on \$\mathbb{R}\$ with infinite limit are uniformly continuous](#)
 - [Intermedia value property of continuous functions on intervals](#)
 - $\mathcal{C}(U, X)$
 - $\mathcal{C}[0, 1]$
 - [Dual space of \$\mathcal{C}\[0, 1\]\$](#)
 - [Riemann integral functional \$\int_{\[a,b\]} : \mathcal{C}\[a,b\] \rightarrow \mathbb{R}\$](#)

And it has 39 siblings.

- [stem](#)
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