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0.1 The font mathpazo is used by this template.

We denote the set of real numbers as $\mathbb{R}$ and that of complex numbers as $\mathbb{C}$. A map is written as $f : X \to Y$ where **im** $f = f(X)$ and **codom** $f = Y$. These are large brackets:

$$\left(\frac{a}{b}\right)(a+b)$$

A simple set:

$$\left\{\frac{1}{2}, \frac{2}{3}, \frac{\pi^2}{6}\right\}$$

A set with a predicate:

$$\{z : \zeta(z) = 0\}$$

Here is a matrix:

$$\begin{bmatrix} 1 & 1 \\ 0 & 1 \end{bmatrix}$$

Equivalence class of a sequence:

$$\left[\frac{1}{n}\right]$$

This is an aligned equation:

$$\begin{aligned} A &= 1 \\ B &= 2 \\ C &= 3 \end{aligned}$$

This is a limit:

$$\lim_{n\to\infty} \sum_{i=1}^{n} \frac{1}{i^2}$$

Limits of functions $f : \mathbb{R}^m \to \mathbb{R}^n$ are defined as follows:

$$\lim_{x\to a} f(x) = p \iff \forall \epsilon > 0, \exists \delta > 0, |x - a| < \delta \implies |f(x) - f(a)| < \epsilon$$

Here are some derivatives:

$$\frac{dx}{dy}$$

$$\frac{d^2x}{dy^2}\left(\sum_{k=1}^{\infty} \frac{1}{k^x}\right)$$