



Absolute Value

1 Why

We want a notion of distance between elements of the real line.

2 Definition

We define a function mapping a real number to its length from zero.

2.1 Notation

We denote the absolute value of a real number $a \in \mathbf{R}$ by $|a|$. Thus $|\cdot| : \mathbf{R} \rightarrow \mathbf{R}$ can be viewed as a real-valued function on the real numbers which is nonnegative.