

planetmath.org

Math for the people, by the people.

stair function

Canonical name StairFunction

Date of creation 2013-03-22 15:32:32 Last modified on 2013-03-22 15:32:32 Owner georgiosl (7242)

Last modified by georgiosl (7242)

Numerical id 6

Author georgiosl (7242)

Entry type Definition Classification msc 26-00 A stair function is a real function of the form

$$\phi = \sum_{k=1}^{n} a_k \chi_{I_k} \tag{1}$$

where $a_k \in \mathbb{R}$, χ_{I_k} is the characteristic function, k = 1, 2, ..., n and $I_1, I_2, ... I_n$ are bounded, pairwise disjoint intervals, for some $n \in \mathbb{N}$.