

Year: 2012

Vol.: 80

Fasc.: 1-2

Title: General and alien solutions of a functional equation and of a functional inequality

Author(s): Włodzimierz Fechner and Eszter Gselmann

The purpose of the present paper is to solve (under some assumption on the domain) the equation

$$g(x + y) - g(x) - g(y) = xf(y) + yf(x).$$

After determining the general solutions, we will investigate the so-called alien solutions. Finally, we will discuss the real solutions of the following related functional inequality:

$$g(x + y) - g(x) - g(y) \geq xf(y) + yf(x).$$

Address:

Włodzimierz Fechner
Institute of Mathematics
University of Silesia
Bankowa 14
40-007 Katowice
Poland

Address:

Eszter Gselmann
Institute of Mathematics
University of Debrecen
H-4010 Debrecen, P.O. Box. 12
Hungary