

SOLUTION AND STABILITY OF 2-VARIABLE ADDITIVE AND JENSEN'S FUNCTIONAL EQUATIONS

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Abstract

In this paper, we obtain the general solution and the stability of a 2-variable additive functional equation of the type

$$f(x + u, y + v) = f(x, y) + f(u, v).$$

We also investigate the general solution and the stability of a 2-variable Jensen's functional equation of the form

$$g\left(\frac{x + u}{2}, \frac{y + v}{2}\right) = \frac{1}{2}[g(x, y) + g(u, v)].$$

Key Words : *Additive functional equation, Jensen functional equation, 2-variable additive functional equation, 2-variable Jensen functional equation, Generalized Hyers-Ulam stability.*

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