

Exact Solutions > Functional Equations > Linear Functional Equations with Several Independent Variables > Jensen Equation

3. 2f(x+y) = f(2x) + f(2y).

Jensen equation.

Solution:

$$f(x) = C_1 x + C_2,$$

where  $C_1$  and  $C_2$  are arbitrary constants.

## Reference

Aczél, J. and Dhombres, J., Functional Equations in Several Variables, Cambridge Univ. Press, Cambridge, 1989.

Jensen Equation

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http://eqworld.ipmnet.ru/en/solutions/fe/fe3103.pdf