



**11.**  $f(ax, ay) = f(x, y)$ .

Here,  $a$  is an arbitrary number ( $a \neq 0$ ).

Solution:

$$f(x, y) = \Phi(y/x),$$

where  $\Phi(x)$  is an arbitrary function.

### References

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

**Polyanin, A. D. and Manzhirov, A. V.,** *Handbook of Integral Equations: Exact Solutions (Supplement. Some Functional Equations)* [in Russian], Faktorial, Moscow, 1998.