



28.  $y(x) + y\left(\frac{a-x}{1+bx}\right) = f(x).$

The function  $f(x)$  is assumed to satisfy the condition  $f(x) = f\left(\frac{a-x}{1+bx}\right).$

Solution:

$$y(x) = \frac{1}{2}f(x) + \Phi\left(x, \frac{a-x}{1+bx}\right),$$

where  $\Phi(x, z) = -\Phi(z, x)$  is any antisymmetric function of two arguments.

### Reference

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