



$$6. \quad F\left(x, y(x), y\left(\frac{ax - \beta}{x + b}\right)\right) = 0, \quad \beta = a^2 + ab + b^2.$$

This is a special case of equation 13 of the current subsection.

Reference

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