



4.  $y^\lambda(x)y(a/x) = f(x)$ .

This is a special case of equation 4, Subsection 2.3.

Solution:

$$y(x) = [f(x)]^{-\frac{\lambda}{1-\lambda^2}} [f(a/x)]^{\frac{1}{1-\lambda^2}}.$$

### Reference

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