

10. 
$$y(x) + \int_a^b g(x)f(t,y(t)) dt = h(x)$$
.

A solution:  $y(x) = \lambda g(x) + h(x)$ , where  $\lambda$  is determined by the algebraic (or transcendental) equation

$$\lambda + F(\lambda) = 0,$$
  $F(\lambda) = \int_a^b f(t, \lambda g(t) + h(t)) dt.$ 

## Reference

Polyanin, A. D. and Manzhirov, A. V., Handbook of Integral Equations, CRC Press, Boca Raton, 1998.

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