

1.
$$y(x) - \lambda \int_a^x y(t) dt = f(x)$$
.

Solution:
$$y(x) = f(x) + \lambda \int_{a}^{x} e^{\lambda(x-t)} f(t) dt$$
.

Reference

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

Copyright © 2004 Andrei D. Polyanin

http://eqworld.ipmnet.ru/en/solutions/ie/ie0201.pdf