

11. 
$$\int_{a}^{x} \left[ e^{\lambda(x-t)} + b \right] y(t) dt = f(x), \qquad f(a) = 0.$$

For b = -1, see equation 1.10.

Solution:

$$y(x) = \frac{f_x'(x)}{b+1} - \frac{\lambda}{(b+1)^2} \int_a^x \exp\left[\frac{\lambda b}{b+1}(x-t)\right] f_t'(t) dt.$$

## Reference

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

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