



10. $y(x) + A \int_a^x (x-t)e^{\lambda(x-t)} y(t) dt = f(x).$

1°. Solution for $A > 0$:

$$y(x) = f(x) - k \int_a^x e^{\lambda(x-t)} \sin[k(x-t)] f(t) dt, \quad k = \sqrt{A}.$$

2°. Solution for $A < 0$:

$$y(x) = f(x) + k \int_a^x e^{\lambda(x-t)} \sinh[k(x-t)] f(t) dt, \quad k = \sqrt{-A}.$$

Reference

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