



2.  $\int_a^x (Ax + Bt + C)y(t) dt = f(x), \quad f(a) = 0.$

1°. Solution for  $B \neq -A$ :

$$y(x) = \frac{d}{dx} \left\{ [(A+B)x + C]^{-\frac{A}{A+B}} \int_a^x [(A+B)t + C]^{-\frac{B}{A+B}} f'_t(t) dt \right\}.$$

2°. Solution for  $B = -A$ :

$$y(x) = \frac{1}{C} \frac{d}{dx} \left[ \exp\left(-\frac{A}{C}x\right) \int_a^x \exp\left(\frac{A}{C}t\right) f'_t(t) dt \right].$$

### Reference

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