

13. 
$$\int_{a}^{x} \frac{y(t) dt}{\sqrt{e^{\lambda x} - e^{\lambda t}}} = f(x), \qquad \lambda > 0.$$

Solution: 
$$y(x) = \frac{\lambda}{\pi} \frac{d}{dx} \int_{a}^{x} \frac{e^{\lambda t} f(t) dt}{\sqrt{e^{\lambda x} - e^{\lambda t}}}.$$

## Reference

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

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