



14. $y(x) - \lambda \int_0^\infty e^{\mu(x-t)} \cos(xt)y(t) dt = f(x).$

Solution:

$$y(x) = \frac{f(x)}{1 - \frac{\pi}{2}\lambda^2} + \frac{\lambda}{1 - \frac{\pi}{2}\lambda^2} \int_0^\infty e^{\mu(x-t)} \cos(xt)f(t) dt, \quad \lambda \neq \pm\sqrt{2/\pi}.$$

Reference

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