



11. $y(x) - \lambda \int_0^{\infty} \sin(xt)y(t) dt = f(x).$

Solution:

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

References

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