

27.
$$\int_{a}^{x} \sin[\lambda(x-t)]y(t) dt = f(x), \qquad f(a) = f'_{x}(a) = 0.$$

Solution:
$$y(x) = \frac{1}{\lambda} f_{xx}''(x) + \lambda f(x)$$
.

Reference

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

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http://eqworld.ipmnet.ru/en/solutions/ie/ie0127.pdf