10. $y(x) + \int_a^b g(x) f\big(t, y(t)\big)\, dt = h(x).$

A solution: $y(x) = \lambda g(x) + h(x)$, where λ is determined by the algebraic (or transcendental) equation

$$\lambda + F(\lambda) = 0, \qquad F(\lambda) = \int_a^b f\big(t,\ \lambda g(t) + h(t)\big)\, dt.$$

Reference

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

