



6. Nonlinear Integral Equations with Constant Limits of Integration

1.
$$\int_a^b g(t)y(x)y(t) dt = f(x).$$

2.
$$\int_0^1 f(t)y(t)y(xt) dt = A.$$

3.
$$\int_0^\infty f(t)y(t)y\left(\frac{x}{t}\right) dt = Ax^\lambda.$$

4.
$$y(x) + \int_a^b g(t)y(x)y(t) dt = f(x).$$

5.
$$y(x) + \int_a^b g(x)y(x)y(t) dt = f(x).$$

6.
$$y(x) + \int_0^\infty f(t)y(t)y\left(\frac{x}{t}\right) dt = 0.$$

7.
$$y(x) + \int_0^\infty f(t)y\left(\frac{x}{t}\right)y(t) dt = Ax^b.$$

8.
$$y(x) + \int_a^b f(t, y(t)) dt = g(x).$$

9.
$$y(x) + \int_a^b e^{\lambda(x-t)} f(t, y(t)) dt = g(x).$$

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

11.
$$y(x) + \int_a^b |x-t| f(t, y(t)) dt = g(x).$$

12.
$$y(x) + \int_a^b e^{\lambda|x-t|} f(t, y(t)) dt = g(x).$$