Spring 2018-2019
Math 342
Applied Mathematics

Mar 26
Solve the given Volterra integral equation by converting it to IVP.

1. $y(x) = 1 + \int_0^x (x-t)y(t)dt$

2. $y(x) = x + \int_0^x y(t)dt$

3. $y(x) = 1 + \frac{1}{6}\int_0^x (x-t)^3 y(t)dt$

4. $y(x) = x^2 + \int_0^x (x-t)y(t)dt$

5. $y(x) = x - x^2 + \frac{x^3}{6} - \frac{x^4}{12} - \int_0^x (x-t)y(t)dt$