Apr 8-9

Solve the given Volterra equation either by *the series solution method* or by *convertion of first kind to second kind method.*

1. $5x^2 + x^3 = \int_0^x (5 + 3x - 3t)y(t)dt$

2. $xe^{-x} = \int_0^x e^{x-t}y(t)dt$

3. $2e^x - x - 2 = \int_0^x (1 + x - t)y(t)dt$

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

5. $4\sin x - 3\cos x + 3 = \int_0^x (4 + 3x - 3t)y(t)dt$