

Exercise 13

Use the *modified decomposition method* to solve the following Volterra integral equations:

$$u(x) = \sec x^2 - (1 - e^{\tan x}) x - x \int_0^x e^{\tan t} u(t) dt$$

[**TYPO:** The first term on the right side should be $\sec^2 x$ to get the answer at the back of the book.]