

Exercise 8

For each of the following integral equations, classify as Fredholm, Volterra, or Volterra-Fredholm integral equation and find its kind. Classify the equation as singular or not.

$$\frac{1}{2}x^2 - \frac{2}{3}x + \frac{1}{4} = \int_0^1 (x-t)u(t) dt$$