

Assignment H5

Deadline for submission:
Thursday , June 19th, 10:00, at the **beginning** of the lecture

Problem: (8 points)
Consider the integral equation

$$u(x) = \mu \int_{-1}^1 (xt^2 + x^2t)u(t) dt + f(x)$$

with $f \in \mathcal{C}([-1, 1])$ and $\mu \in \mathbb{R}$. For which μ does a unique solution exist ?
Determine this solution.