Homework 8

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1 Problem 1

$\int_{x-\frac{1}{2}}^{x+\frac{1}{2}} f(t)dt$

Let

$$\Omega_0(t) = \begin{cases} 1 & -\frac{1}{2} \leq t \leq +\frac{1}{2} \\ 0 & otherwise \end{cases}$$

Find

$$\Omega_1(t) = \int_{x-\frac{1}{2}}^{x+\frac{1}{2}} \Omega_0(t)dt$$

$$\Omega_2(t) = \int_{x-\frac{1}{2}}^{x+\frac{1}{2}} \Omega_1(t)dt$$