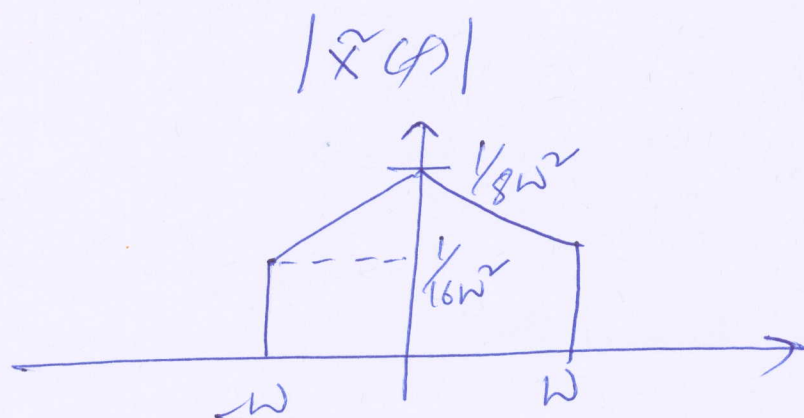


(7)

$$\therefore \tilde{X}(f) = \begin{cases} \frac{-j}{8W^2} \left(1 - \frac{|f|}{2W}\right), & |f| < 2W \\ 0, & \text{otherwise.} \end{cases}$$



One can now find $\tilde{x}(t)$ by taking the inverse FT of $\tilde{X}(f)$.

$x(t)$ is then given by

$$x(t) = \text{Re} (\tilde{x}(t) e^{j2\pi fct}) .$$