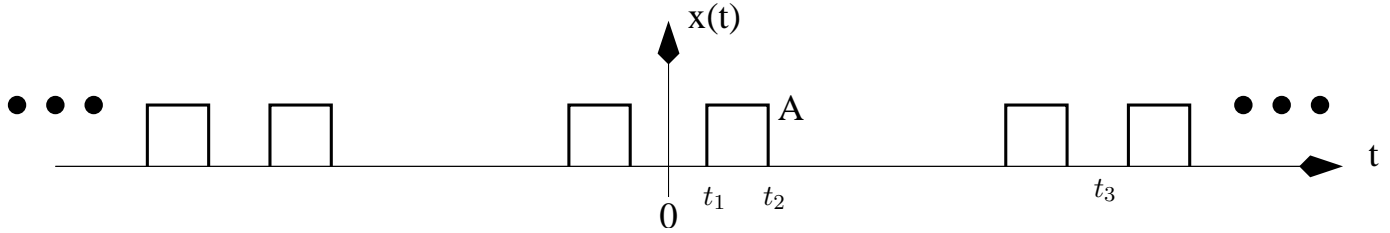


Signals and Systems problem for the Spring 2013 MS Exam in ECE

Question: Let $x(t)$ be an even periodic function with period t_3 , as shown below, where $t_1 = 2 \times 10^{-3} \text{sec}$, $t_2 = 3 \times 10^{-3} \text{sec}$, and $t_3 = 24 \times 10^{-3} \text{sec}$. The signal $x(t)$ is the input to a linear time-invariant system with impulse response $h(t) = (B/t) \sin(3\pi t/t_3)$.



Determine the output signal $y(t)$ in the time-domain.