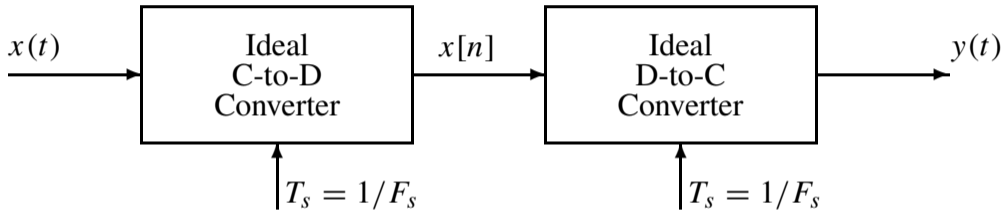


PROBLEM:

Consider the following system.



If $x(t)$ is given by the formula

$$x(t) = 3 + 2 \cos(2000\pi t) \sin(25000\pi t),$$

what condition must be satisfied by the sampling rate, $f_s = 1/T_s$, such that $y(t) = x(t)$?