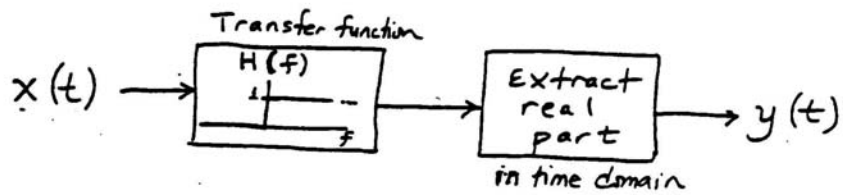


Nishimura
Problem 1



1. Is this system linear?
2. Is this system time-invariant?
3. If $x(t)$ is real-valued, what is $y(t)$?

Answers

- 1) No. extracting real part is nonlinear (consider $j x(t)$)
- 2) Yes
- 3) $\frac{1}{2} x(t)$ time-domain or freq-domain approach ok