

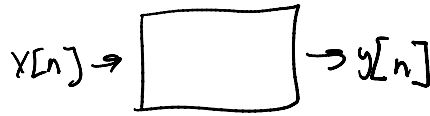
# 1.5 CT & DT Systems

Tuesday, August 28, 2007  
4:05 PM

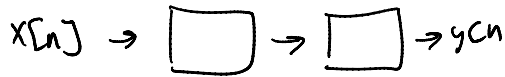
CT System



DT System



Systems can be connected "serial" or "cascade"



or "parallel"



\* Ex.

system 1  
system 2

$$y[n] = x[2n]$$

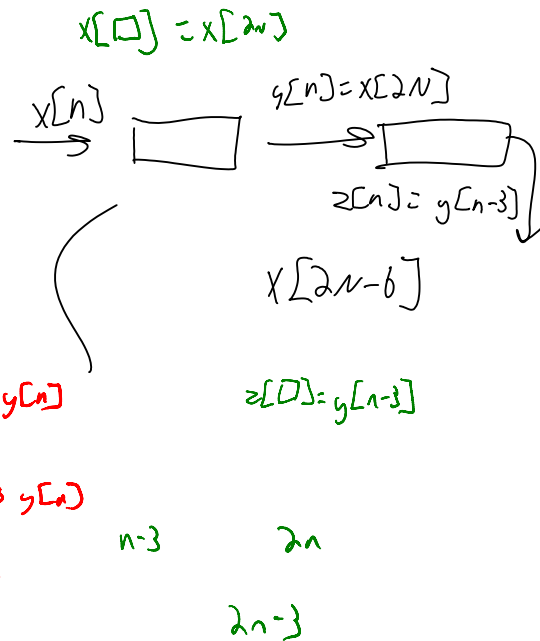
$$y[n] = x[n-3]$$

Quiz: Find output for:

a)  $x[n] \rightarrow \boxed{\text{sys 1}} \rightarrow \boxed{\text{sys 2}} \rightarrow y[n]$

b)  $x[n] \rightarrow \boxed{\text{sys 2}} \rightarrow \boxed{\text{sys 1}} \rightarrow y[n]$

Read 1.6 - Basic system properties ABET



$$x[n] \rightarrow \boxed{\text{D}} \rightarrow y[n] = x[n-3] \rightarrow \boxed{\text{D}} \rightarrow z[n] = y[2n]$$

$$x[2n-3]$$