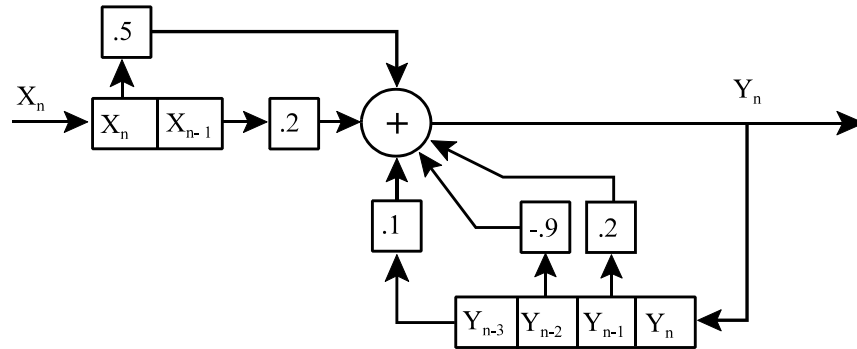


# EE 432-1, Digital Control Systems, Quiz-2

Dr. Ahmad A. Masoud, Monday Oct. 22 2007.



For the system with the above simulation diagram:

Assume that initially the output register is storing  $[y_{-3} \ y_{-2} \ y_{-1} \ y_0] = [1 \ 0 \ 1 \ 1]$  and there is no input signal. Derive a formula which you may use to compute the output  $Y_n$  for any  $n > 0$ . Numerically compute the content of the registers of the system at  $n=2$ .