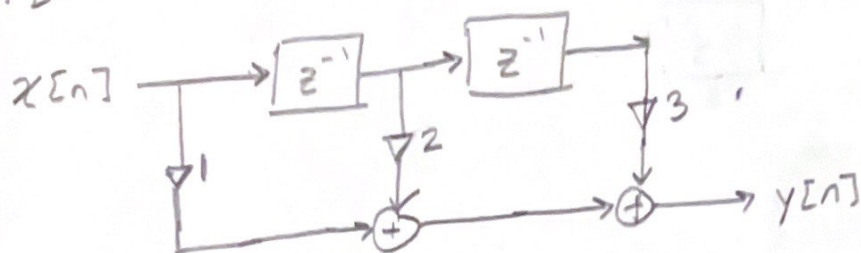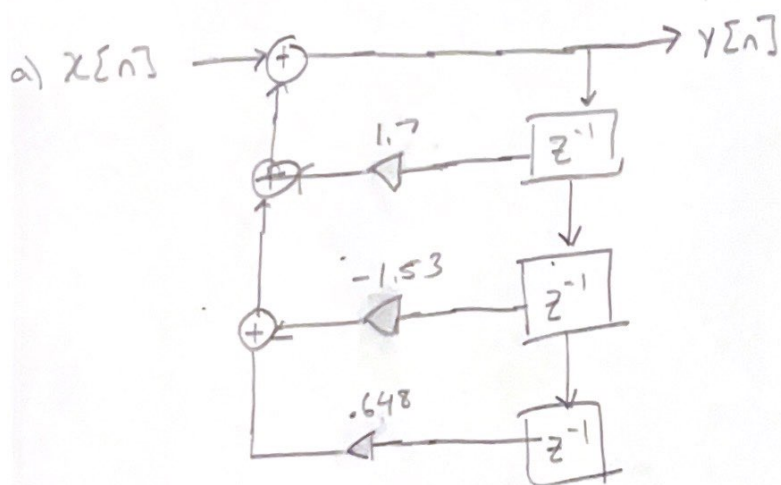DSP HW #8

1) $y[n] = x[n] + 2x[n-1] + 3x[n-2]$

$H(z) = \dfrac{Y(z)}{X(z)} = 1 + 2z^{-1} + 3z^{-2}$

a) Draw Direct Form

2) $H(z) = \dfrac{1}{1 - 1.7z^{-1} + 1.53z^{-2} - .648z^{-2}}$

a)

3) $H(z) = \dfrac{1 - 3z^{-1} + 3z^{-2} + z^{-3}}{1 + .2z^{-1} - .14z^{-2} + .44z^{-3}}$