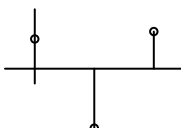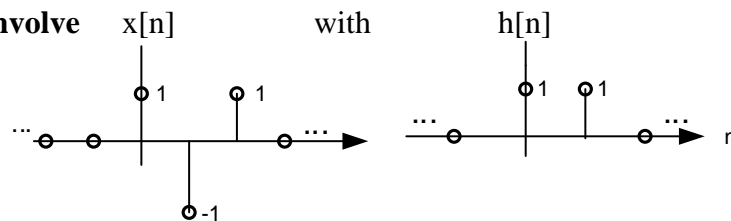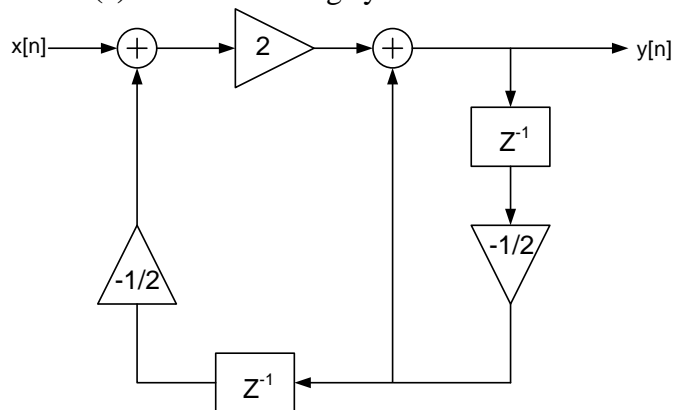1.   What **symmetry**, if any, does (zero elsewhere) have?

2.   Find the **periodic, conjugate-symmetric** part of x[n] = [6, 1+j, 6+j]

3.   What is the **digital frequency** $0 \leq \omega \leq \pi$ of a 100Hz cosine sampled at $f_s = 75$Hz?

4.   Graphically **convolve**   x[n]   with   h[n]

5.   **Given** the DE $y[n] + \frac{1}{4}y[n-1] = x[n] + \frac{1}{2}x[n-1]$ and $x[n] = 2\left(\frac{1}{2}\right)^n u[n]$
      Find y[n]

6.   Find **H(z)** of the following system

7.   **Find** the impulse response of the above system.