

Expt 7: PROPERTIES OF DTFS: TIME SHIFTING

Verify Time shifting property for the sequence $y[n] = x[n-2]$ where $x[n] = [\dots \mathbf{9} \ 18 \ 27 \ 36 \ 45 \ \dots]$ (Note: *Boldface indicates $n=0$ index*).

Evaluate Fourier coefficients of (i) $x[n]$ using DTFS and (ii) $y[n]$ using time shifting property of DTFS.

Sketch the input sequence $x[n]$, $y[n]$ and Fourier coefficients of $x[n]$ and $y[n]$.