**Example 7-1:** The following FIR filter

$$y[n] = 5x[n-1] - 4x[n-3] + 3x[n-5]$$

has a finite-length impulse response:

$$h[n] = 5\delta[n-1] - 4\delta[n-3] + 3\delta[n-5]$$

Each impulse in $h[n]$ is transformed using (**??**), and then combined according to the linearity property of the DTFT which gives

$$H(e^{j\hat{\omega}}) = 5e^{-j\hat{\omega}} - 4e^{-j3\hat{\omega}} + 3e^{-j5\hat{\omega}}$$

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