
EXERCISE 8.5: It is easy to create a MATLAB example that demonstrates the conjugate-symmetry property by executing $X_k = \text{fft}(1:8)$, which computes the 8-point DFT of a real signal. List the values of the signal $x[n]$ for $n = 0, 1, 2, \dots, 7$. Then tabulate the values of the MATLAB vector X_k in polar form from which you can verify that $X[N - k] = X^*[k]$ for $k = 0, 1, \dots, 7$ and $N = 8$. Finally, list the value of $\hat{\omega}$ corresponding to each index k .

