EXERCISE 8.11: Use MATLAB to synthesize $N = 40$ samples of $x_c(t)$ in (8.42) with $f_s = 4100$ Hz instead of 4000 Hz; call the result `x4100`. Next, use the MATLAB statement `X41=fft(x4100,40)` to compute the 40-point DFT. Finally, make a plot of the DFT magnitude `stem(0:39,abs(X41))`, and compare the resulting magnitude spectrum to that of Fig. 8-12(b). Comment on expected zero regions of the DFT.

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