EXERCISE 10.1: Assume that the input to the difference equation (10.3a) is $x_1[n] = 10x[n-4]$, where $x[n]$ is given by (10.3b) and Fig. 10-2. Thus the input is 10 times bigger and delayed by 4. Use iteration of (10.3a) to compute the corresponding output $y_1[n]$ for $n = 0, 1, \ldots, 11$ assuming the initial rest condition. Compare your result to the output plotted in Fig. 10-3, and verify that the system behaves as if it is both linear and time-invariant, that is, the output should be 10 times bigger and delayed by 4.