Prob. 1
Refer to Figs. 4-7 and 4-8. The DBA power control algorithm is to be applied to each of these examples.
   a. Find the $R$ matrices in each case. Show, in particular, that (4-26) is the $R$ matrix for the case of Fig. 4-7
   b. Find the six eigenvalues if $R$ in each case and show they agree with the values appearing in the text.
   c. Show $\text{Tr}(R) = M = \sum z_i$ in each case.
   d. Run the DBA algorithm and plot the SIR at a number of base stations as a function of iteration $n$ for at least 20 iterations. Comment on the results.

Prob. 2
Repeat problem 1 for the DPC algorithm: Find the $A$ matrices for the two cases of Figs. 4-7 and 4-8. Find the eigenvalues in each case. Compare with those of the DBA algorithm. Run and plot the algorithm in each case for at least 20 iteration and compare with the DBA algorithm.