

Homework # 3: Chapter 3 (Introduction to the Cellular Principle)

- Rules:**
1. Due by Friday, February 22, 2013, in class
 2. Solve all the problems below for 100 points - **independent work only.**
 3. Show full solution to the problems - do not skip steps.

Solve the following problems (problems 1-4 are from the textbook, starting on page 100):

1. Problem 3.15
2. Problem 3.17
3. Problem 3.18
4. Problem 3.26
5. A segment of a highway is divided into 10 equal-size cells. The number of users in cell i is n_i and the total number of channels in the system is C_{total} . Using the DCA-I results obtained in class, write a set of equations expressing the dependencies of the n_i 's for the following two cases:
 - a) buffer of 1 cell between reused channels
 - b) buffer of 2 cells between reused channels