

UNIVERSITY OF TEXAS AT DALLAS
Department of Electrical Engineering

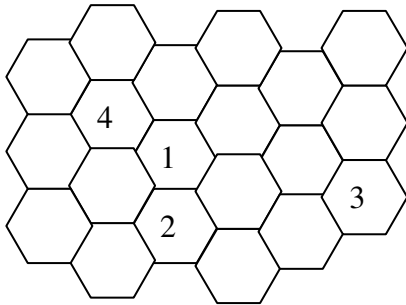
EE/TE 4367 - Telecommunications Switching & Transmission
Assignment #9

Date assigned: 4/17/2008

Date due: 4/24/2008

9.1 For acceptable performance, the signal-to-interference (SIR) ratio must be at least 20 dB. What must be the value of D/R ? Assume γ to be equal to 3.

9.2 Identify the rest of cell numbers in the following 4 cluster cellular layout.



9.3 A 64-kilobyte message is to be transmitted over two hops in a network. The network limits packets to a maximum size of 2 kilobytes, and each packet has a 32-byte header. The transmission lines in the network are error free and have a speed of 50 Mbps. Each hop is 1000 km long. How long does it take to get the message from the source to the destination?