WCM 606 - CDMA Wireless Standards

Assignment one

In a single-cell system your bandwidth is limited to 10MHz on each direction. A CDMA wireless system with 10kbps user signals requiring an E_b/N_0 of 6 dB.

(a) Calculate the capacity (in number of simultaneously active users per cell)

(b) How do the results in (a) change if you use 120 ^{0} sectorization?

(c) How do the results in (b) change if instead of a single cell you have many? (Do not take into account any kind of voice activity factor in cases above.)