CNT5505 Homework No. 2

(Given September 25, due October 2)

(Note: you can either do this as an individual homework or form a group of 2 to do this homework.)

1. (Problem 3, page 187) Television channels are 6MHz wide. How many bits/sec can be sent if four-level digital signals are used? Assume a noiseless channel.
2. (Problem 4, page 187) If a binary signal is sent over a 3-kHz channel whose signal-to-noise ratio is 20dB, what is the maximum achievable data rate?
3. (Problem 46, page 190) A CDMA receiver gets the following chips: (-1 +1 -3 +1 -1 -3 +1 +1). Assuming the chip sequences defined in Fig. 2-28(a), which stations transmitted, and which bits did each one send?