Chapter 3 Philip Bock

3.1) (a) In a multipoint, since the 2 devices share a path, only one can transmit at a time.

3.5) Amplitude = 2.0, Frequency =1, Phase Shift = -0.5

3.9) If all lower harmonics were eliminated and the higher ones kept, the same problem would exist, you would have high points blurred out by the distortion and at worst case you would only be able to clearly differentiate the lower signals.

3.10) Digital data transfer would have to modify the way it sends signals, in an analog system, the digital transmissions can not be simply on and off, there are differentiating levels that must accomadated to transfer over an analog medium.

3.12) 714 vertical lines (up from 600) and 537.5 horizontal lines (up from 450)

3.13) (a) 230.4 Mbps

- 3.13) (b) C = 52.3 Mbps
- 3.15) C = 475 bps
- 3.16) (a) 1200 bits
- 3.16) (b) B = 9600 bits
- 3.19) SNR = 101
- 3.23) ratio is 31.6
- 3.24) Power in dB is 13 dBW