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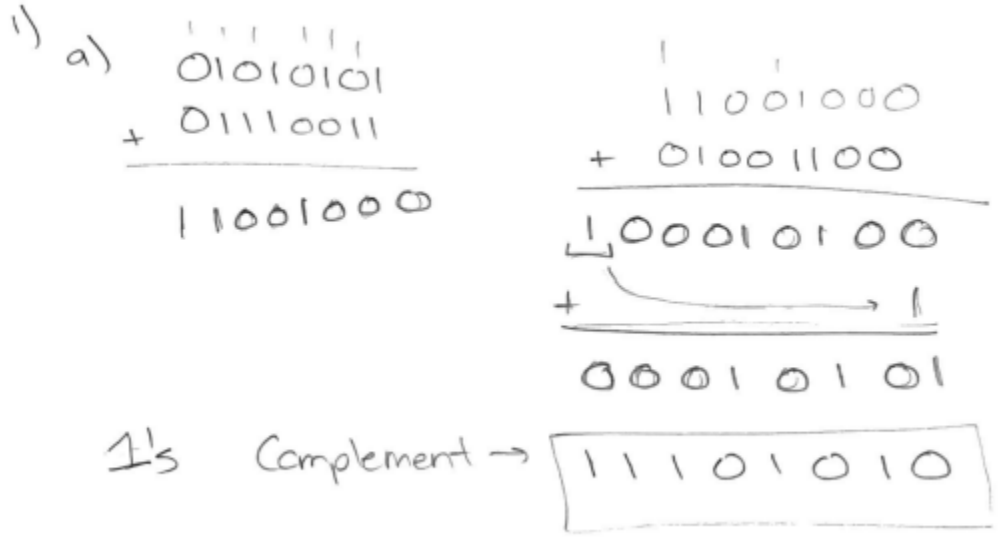
CSC138 - Section 03

Homework 3

1)

a)



b) If the sum contains a zero, the receiver knows there has be en an error. So all one-bit errors will be detected.

c) Two-bit errors can be undetected. For example, if the last bit of the first two bytes are changed to their inverse the 1's complement of the result with 2 bit error is the same as the correct answer, meaning it will pass undetected.

2)

a) After one second the advertised window is 0 because 10,000 bytes are buffered and the receiver has not yet read the data.
b) After two seconds the advertised window is 2000 because the receiver just read 2000 bytes and so the sender can send another 2000 bytes.
c) After fifty seconds the advertised window is 10,000 because after fifty seconds all 50,000 bytes of data have been transferred and the receiver's buffer will be empty.