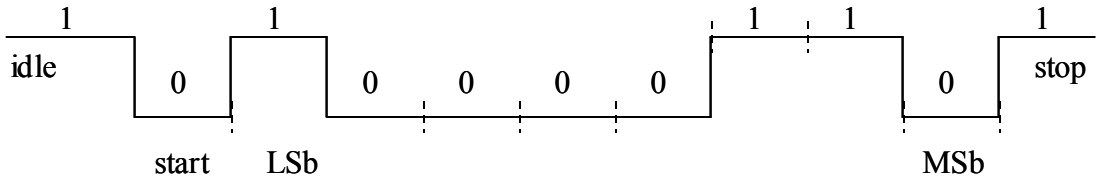
ECE 3724/CS 3124 Quiz #5 Reese NAME: _____

Answer each of the following questions (you can use a calculator)

a. Draw the RS232 waveform for the value 0x61 sent in 8-data bit, 1 stop bit format.

0x61 = 01100001



b. For the value 0x61 sent in 7-bit, odd parity format, what is the value of the parity bit?

0x61 = 1100001 as 7 data bits. Since number of '1' bits is odd already, an odd parity bit added to this has a value of '0'.

c. What is one bit time for a baud rate of 9600 in MICROSECONDS?

1/9600 = 1.04 e –4 s = 1.04 e-4 s *1.0e6 μs /1 s = 1.04 e2 μs = 104 μs

d. What is a framing error in PIC18 asynchronous IO?

A framing error is when a stop bit is received as a '0' instead of a '1'.

A framing error is most likely to occur when the sender's baud rate is lower than the receiver's baud rate.