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CpE 111 - HW9

8.21(c), 8.28(d), 8.29(c), 8.32(c), 9.1, 9.2

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11/10/99

$$8.21(c) \quad \begin{array}{r} 10100010 \\ + 11110001 \\ \hline 10010011 \end{array} =$$

10010011

8.28 d) G: 10110101

F: 1s + 2s complement

S:

1s complement: 01001010

$$2s \text{ complement: } 1s \text{ comp} + 1 = 01001011$$

8.29 c) G: 134 - 62

$$134_{10} = 10000110_2 = x$$

$$62_{10} = 0011110_2 = y$$

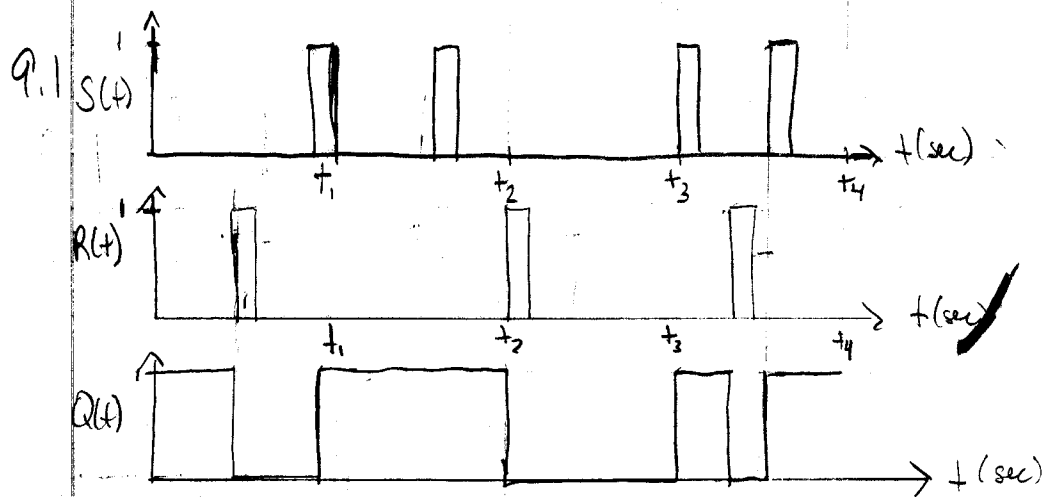
$$1s \text{ comp}(Y) = 11000001$$

$$2s \text{ comp}(Y) = 11000010$$

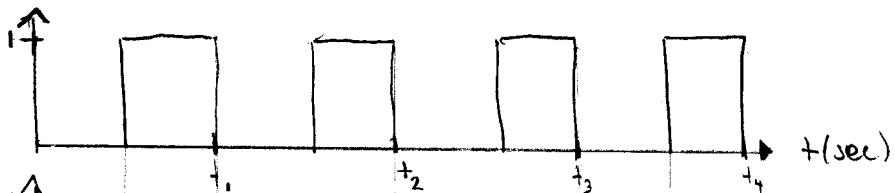
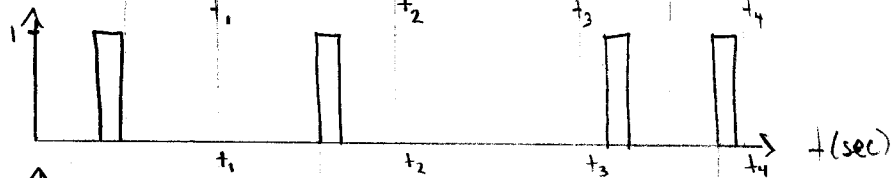
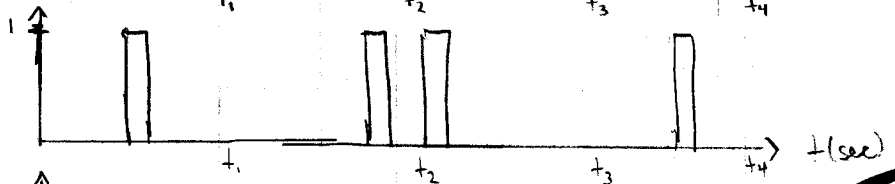
$$x - y = x + 2s(y) = \begin{array}{r} 10000110 \\ + 11000010 \\ \hline 01001000 \end{array} = 01001000$$

$$\begin{array}{r}
 8.32 \text{ c) } \begin{array}{r} 1011 \\ \times 0111 \\ \hline 1011 \\ , 1011 \\ , 1011 \\ 0000 \\ \hline 1001101 \end{array}
 \end{array}$$

$$= 01001101$$



9.2

 $\Phi(t)$  $S(t)$  $R(t)$  $Q(t)$ 