

D. Tholl

CPRE 281: Quiz 1

1) $132_8 \Rightarrow 1+3+2 = 64 + 24 + 2 = 90_{10}$

2) $432_{10} \Rightarrow \text{Binary}$

$\begin{array}{r} R \quad \text{LSD} \\ 432/2 = 0 \\ 216/2 = 0 \\ 108/2 = 0 \\ 54/2 = 0 \\ 27/2 = 1 \\ 13/2 = 1 \\ 6/2 = 0 \\ 3/2 = 1 \\ 1/2 = 1 \quad \text{mod} \end{array}$

$\Rightarrow 1\overline{1}0110000_2$

3) $42_7 \Rightarrow 4^2 + 2^0 = 28 + 2 = 30_{10}$

$\begin{array}{r} R \\ 30/2 = 0 \\ 15/2 = 1 \\ 7/2 = 1 \Rightarrow 1\overline{1}\overline{1}\overline{1}0_2 \\ 3/2 = 1 \\ 1/2 = 1 \end{array}$

4) $ACE_{16} \Rightarrow A \quad C \quad E$

$\Rightarrow 101\overline{1}\overline{1}\overline{0}01\overline{1}\overline{1}0$

$5 \quad 3 \quad 1 \quad 6 \Rightarrow 1\overline{5}\overline{3}\overline{1}\overline{6}_8$