

ECGR 6185

Notes 4/1/2013

$$\begin{array}{r} 0.10000000_{10} \\ - 0.0625 \\ \hline .0375 \\ - .03125 \\ \hline .00625 \\ .003906 \\ \hline .002344 \\ .001894 \\ \hline .000450 \end{array}$$

$1/16 = 2^{-4}$

$1/32 = 2^{-5}$

$1/256 = 2^{-8}$

$1/512 = 2^{-9}$

$1/2 = 2^{-1}$ ①

$1/4 = 2^{-2}$

$1/8 = 2^{-3}$

$1/16 = 2^{-4}$

$1/32 = 2^{-5}$

$1/64 = 2^{-6}$

$1/128 = 2^{-7}$

$1/256 = 2^{-8}$

$1/512 = 2^{-9}$

Sign = 0
 exponent = $127 - 4$
 $= 123_{10}$
 $= 01111011$
 $=$

Normalize
 $0.000110011001100110011_2$
 -4

Final # \rightarrow 001111011001100110011001
 $1001100 = 0.1$