Daniel Bae, CIS-17A
Lab-2

0.25_{10}

$0.25 \times 2 = 0.5$
$0.5 \times 2 = 1.0$

$0.25_{10} = 0.01_2$

$0 \times 2^{-1} = 0$
$1 \times 2^{-2} = 1 \times (0.25) = 0.25_{10}$

$0.25 \times 8 = 2.0$

$0.25_{10} = 0.2_8$

2×8^{-1}
$2 \times (0.125) = 0.25_{10}$ ✓

$0.25 \times 16 = 4.0$

$0.25_{10} = 0.4_{16}$

4×16^{-1}
$4 \times (0.0625) = 0.25_{10}$ ✓

$0.25_{10} = 0.01_2 = 0.2_8 = 0.4_{16}$

0.25_8

0.25_8
$2 \times 8^{-1} = 2 \times (0.125) = 0.25$
$5 \times 8^{-2} = 5 \times (0.015625) = 0.078125$
$+ = 0.328125_{10}$

0. 2 5
↓ ↓
010 101

$= 0.010101_2$

$= 0.0101\ 0100$
$0.\ 5\ \ 4 \Rightarrow 0.54_{16}$

$0.25_8 = 0.328125_{10} = 0.54_{16} = 0.010101_2$

0.25_{16}

0.25_8
$2 \times 16^{-1} = 2(0.0625) = 0.125$
$5 \times 16^{-2} = 5(0.00390625) = 0.01953125_{10}$

0.125
$+ 0.01953125$
$= 0.14453125_{10}$

0. 2 5
↓ ↓
0. 0010 0101

0.00100101_2

$0.001\ 001\ 010$
$0.\ 1\ \ 1\ \ 2_8$
$= 0.112_8$

$0.25_{16} = 0.14453125_{10} = 0.00100101_2 = 0.112_8$

0.1101_2

0.1101
↓
$= 0.D_{16}$

$0.110\ 100$
$0.\ 6\ \ 4_8$

0.1101
$1 \times 2^{-1} = (0.5)$
$1 \times 2^{-3} = (0.25)$
$0 \times 2^{-3} = (0.125)$
$1 \times 2^{-4} = (0.0625)$

0.5
0.25
+ 0.0625
0.8125$_{10}$

$0.1101_2 = 0.D_{16} = 0.64_8 = 0.8125_{10}$