Aleeza
Choudry
Dr. Lehr
CSC-17A-49285

Conversion 1 CSC-17A Homework

1.) 93_{10} → Base 2, 8, 16

① Base 16 = 5 × 16^1 + D × 16^0 = 93_{10}

16 | 93 (×5)
−80
13 → 13 = D

→ $5D_{16}$

② Base 8 = 1 × 8^2 + 3 × 8^1 + 5 × 8^0

8 | 93 (×11)
−88
05

8 | 11 (1)
−8
3

8
93 13
−64
29
−24
05

→ 135_8

③ Base 2 = 1011101_2

5 → 0101 D → 1101

2.) 93_{16} → Base 2, 8, 10

① convert to Base 10 = 93_{16} = 90_{16} + 3_{16}
= 9 × 16^1 + 3 × 16^0
144 + 3 = 147_{10}

② convert to Base 2
↳ 9 → 1001 3 → 0011 = 10010011_2

③ Convert to Base 8 =
↳ 10010011 → 010 | 010 | 011 → 223_8
2 2 3