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Lab 2

1. Convert Decimal to 8 bit Binary
   1. -49 = 1100 11112
   2. -239 = XXXX XXXX
   3. -95 = 1010 00012
   4. -200 = XXXX XXXX
   5. -101 = 1001 10112
2. Convert to HEX
   1. 10477 = 28ED
   2. 23948 = 5D8C
   3. -33395 = XXXX
   4. -2000 = F830
   5. -10101 = D88B
3. Convert HEX to Decimal
   1. DE28 = -8664
   2. CCC5 = -13115
   3. 543A = 21562
   4. 044F = 1103
   5. F0F0 = -3856
4. Convert Decimal to Radix
   1. 4579 = 10743­8
   2. 243 = 33034
   3. 3000 = 18A012
   4. 97 = 2416
   5. 100 = 102013
5. Convert
   1. A916 = 1010 10012
   2. 2A616 = 67810
   3. 48910 = 1E916
   4. 49610 = 0100 1001 01102
   5. 0111 0101 1000BCD = 75810
   6. 1001 0101BCD = 0101 11112

Lab 3

1. Add
   1. 1001 + 0101 = 01110
   2. 1100 + 0110 = 10010
   3. 0011 + 1100 = 01111
   4. 0101 + 0111 = 01100
   5. 1011 + 0010 = 01101
2. Add 4 bit
   1. 1001 + 0101 = 1110, OF = 0
   2. 1100 + 0110 = 0010, OF = 0
   3. 0011 + 1100 = 1111, OF = 0
   4. 0101 + 0111 = 1100, OF = 0
   5. 0001 + 1111 = 0000, OF = 1
3. Add 8 bit
   1. 58 + -100 = 1101 0110, OF = 0
   2. -35 + -69 = 1001 1000, OF = 0
   3. 89 + 75 = 1010 0100, OF = 1
   4. -126 + -13 = 0111 0101, OF = 1
   5. -105 + 80 = 1110 0111, OF = 0
4. Convert Decimal to 8 bit to 2’s Complement
   1. 44
      1. 0010 1100
      2. 1101 0100
   2. 81
      1. 0101 0001
      2. 1010 1111
   3. 113
      1. 0111 0001
      2. 1000 1111
   4. 62
      1. 0011 1110
      2. 1100 0010
   5. 125
      1. 0111 1101
      2. 1000 0011
5. Sum Hex
   1. 6B4 + 3FD = AB2
   2. A49 + 6BD = 1106
   3. 7C4 + 3BE = B82
   4. B69 + 7AD = 1316
6. Sum of 12
   1. 6B4 + 3FE
      1. AB216
      2. -135810
   2. A49 + 6BD
      1. 10616
      2. 26210
   3. ­7C4 + 3BE
      1. B8216
      2. -115010
   4. B69 + 7AD
      1. 31616­
      2. 79010­
7. Subtraction of HEX
   1. 6B4 + 3FE
      1. 2B6
      2. 694
   2. A49 + 6BD
      1. 38C
      2. 908
   3. 7C4 + 3BE
      1. 406
      2. 1030
   4. B69 + 7AD
      1. 3BC
      2. 956
8. Initials
   1. M
      1. 77
      2. 4D
      3. 0100 1101
      4. 115
      5. U + 4D
   2. Z
      1. 90
      2. 5A
      3. 0101 1010
      4. 132
      5. U + 5A
9. IEEE
   1. +10.75
      1. 0
      2. 1000 0010
      3. 0101 1000 0000 0000 0000 0000
   2. -76.0625
      1. 1
      2. 1000 0010
      3. 0011 0000 0100 0000 0000 0000
10. Convert IEEE Hex to Decimal
    1. 16.7510
    2. -187, 310 08010