

Chapter 3 Architecture Problems

1. Convert the following into unsigned binary:
 - a. 32 = **1000000**
 - b. 17 = **10001**
 - c. 1,049 = **10000011001**
 - d. 63,211 = **1111011011101011**
 - e. 2,314 = **100100001010**
2. Convert the following binary numbers into decimal
 - a. 010 0111 = **39**
 - b. 101 0101 = **85**
 - c. 0000 0111 = **7**
 - d. 1111 1000 = **248**
 - e. 1100 1100 = **204**
3. Convert the following binary numbers into their hexadecimal equivalent
 - a. 0001 0001 = **11**
 - b. 1111 1111 = **FF**
 - c. 0010 1000 = **28**
 - d. 1011 = **B**
 - e. 1111 1110 1101 1100 = **FEDC**
4. Using ascii encoding, convert the string "SHC" into a 3 byte sequence of binary digits.
S = 53
H = 48
C = 43

53 = 0101 0011
48 = 0100 1000
43 = 0100 0011

So SHC = **0101 0011 0100 1000 0100 0011**