# Class 3 Assignment

IT 101 – Computer Fundamentals

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## Part 1

Please read unit 4 in the text book and come to our next class on February 8 ready to discuss data and compression. You should have already read unit 1 by now. We will be skipping over units 2 and 3.

## Part 2

Exercise: Solve the following conversions between binary, octal, hexadecimal and decimal. Don’t forget that octal digits are represented with 3 bits and hexadecimal digits are represented with 4 bits.

### Binary to Decimal

1. 0010 0010 =
2. 0100 0001 =
3. 0110 1101 =
4. 1110 1011 =
5. 0001 0111 =

### Decimal to Binary

1. 42 =
2. 18 =
3. 128 =
4. 55 =
5. 93 =

### Binary Addition

1. 0010 0011

1101 0101 decimal value =

1. 1000 0001

0001 0101 decimal value =

1. 0010 0010 1010 0101

0110 1111 0111 0001 decimal value=

### Binary to Octal

1. 0000 0001 = decimal value =
2. 1101 1011 = decimal value =
3. 1100 1011 = decimal value =
4. 1001 0101 = decimal value =
5. 0111 1011 = decimal value =

### Octal to Binary

1. 002 = decimal value =
2. 020 = decimal value =
3. 107 = decimal value =
4. 051 = decimal value =
5. 623 = decimal value =

### Binary to Hexadecimal

1. 0100 1111 = decimal value =
2. 0110 0100 = decimal value =
3. 1000 0000 = decimal value =
4. 0111 0010 = decimal value =
5. 0110 1011 = decimal value =

### Hexadecimal to Binary

1. FE = decimal value =
2. C3 = decimal value =
3. 0A = decimal value =
4. 1B = decimal value =
5. FF = decimal value =

## Part 3

Complete the ASCII Worksheet using the ASCII chart.

## Part 4

Review the following vocabulary and ensure you know the meaning of each term.

1. ASCII
2. Binary
3. BIOS
4. CPU
5. Bus
6. Peripheral
7. Input Device
8. Output Device
9. RAM
10. Storage Device
11. Video Card
12. SSD
13. Bit
14. Byte
15. Kilobyte (k)
16. Megabyte
17. Gigabyte
18. Terabyte
19. Petabyte
20. Assembly Language
21. Binary
22. Octal
23. Hexadecimal
24. Decimal
25. Motherboard