Shortcut method for Conversion

1. Binary to Octal

Note : we always take a pair of 3. and it will move from right to left

1. $(01101110)_2$ ----- $(\ 156\ )_8$

001 101 110
1 5 6

2. $(1101010)_2$ ----- $(\ 152)_8$

001 101 010
1 5 2

2. Octal to Binary

Note: We convert each number in 3 bit binary. And write it from left to right.

1. $(562)_8$ ----- $(101110010)_2$

5 6 2
101 110 010

2. $(6751)_8$ ----- $(110111101001\ )_2$

6 7 5 1
110 111 101 001

3. Binary to HexaDecimal

Note : we always take a pair of 4. and it will move from right to left

1. $(11010011)_2$ ----- $(D3)_{16}$

1101	0011
13	3
D	3

2. $(10110101100)_2$ --------- $(\ )_{16}$

0101	1010	1100
5	10	12
5	A	C

4. HexaDecimal to Binary

Note: We convert each number in 4 bit binary. And write it from left to right.

1. $(2AB)_{16}$ ---- $(001010101011)_2$

2	A	B
0010	1010	1011

5. Hexadecimal to Octal

$(1056)_{16}$ ----- $(10126)_8$

Step 1 : convert numbers in 4 bit binary

1 - 0001 0 - 0000 5 - 0101 6 - 0110

0001000001010110

Step -2 : Divide the binary number in pair of 3 bits and then convert it into number.

0 001 000 001 010 110
1 0 1 2 6