234 ======= (234)10

Convert Decimal 234 into binary

Convert (234)10 into binary

110011 ===== (110011)2

237 =======(237)8

A12 =======(A12)16

0 to 15

0 to 9 , 10 to 15 (A to F)

Conversion of Binary to Decimal

101 = (101)2

101 ==>

1\*2^0 = 1

0\*2^1 = 0

1\*2^2 = 4

1+0+4 = (5)10

1101 1111

1\*2^0 =1

1\*2^1 =2

1\*2^2 =4

1\*2^3 =8

1\*2^4 =16

0\*2^5 =0

1\*2^6 =64

1\*2^7=128

223

Octal to Decimal

(235)8

5\*8^0 = 5

3\*8^1= 24

2\*8^2=128

5+24+128 = 157

(7512)8

7\*8^3 + 5\*8^2 + 1\*8^1 + 2\*8^0

3584+ 320+ 8 + 2

3914

(A3F)16

A =10 => 10\*16^2 =======2560

3 => 3\*16^1 ======= 48

F=15 => 15\*16^0 =======15

2623

=================================================================================

Decimal to Binary

(125)10

125 /2 ====> Remainder = 1

62 /2 =====> 0

31/2================> 1

15/2 ================>1

7/2==================>1

3/2==================>1

1/2 =================>1

1111101 (answer)

Shortcut method to find decimal equivalent of Binary :

8421 method

1 1 1 1 1 0 1

64 32 16 8 4 1 =>125

1010 1111

===========================================================================

Octal to Binary

(24)8

1) Convert to decimal =====> 2\*8^1 + 4\*8^0 = 20

2) Convert decimal to binary => 20 => 20/2 =0

10/2 ===== 0

5/2 ===== 1

2/2 ====== 0

1/2 ====== 1

10100

Shortcut method (octal to binary):

2 4  
 010 100

010100

2/2 ==== 0 4/2 = 0

1/2 ==== 1 2/2 = 0

010 1/2 = 1

100

Hexadecimal to binary

D45 = >110110101001 (Abhishek)

110101000101 (Nilesh)

1101 0100 0101 (Hemant)

1011100101 (Nimesh)

110101000101 (Vishal)

1101100101 (Josephine)

110101000101 (Saloni)

D\*16^2 + 4\*16^1 + 5\*16^0

13\*256 + 64 + 5 ==3328 + 69 => 3397

3397/2 = 1

D 4 5

13

1101 0100 0101

110101000101

456 into octal ,Hexadecimal

456 /16 => 8

28 /16 => 12 ====> C

1/16= 1

1C8

======================================================================

1100111001 == Decimal, octal , Hexadecimal

1 1 0 0 1 1 1 0 0 1

512 256 32 16 8 1

512+256+32+16+8+1 = 825 (decimal)

1 1 0 0 1 1 1 0 0 1

0 0 1 1 0 0 1 1 1 0 0 1

1 4 7 1 (octal)

1 1 0 0 1 1 1 0 0 1

0 0 1 1 0 0 1 1 1 0 0 1

3 3 9 (Hexadecimal)

FA4 --> decimal , binary, octal

271 --> decimal, binary, hexadecimal

192 --> binary, octal , hexadecimal

1100 --> decimal, octal, hexadecimal

4/2 ===== 0

2/2 =====0

1/2 ====== 1

0100