

Binari	Octal	Decimal	Hexadecimal
11110110101011	36653	683	3DAB
110110101	665	437	1B5
1101111100010010	157422	948	DF12
1111110011	1763	1011	3F3
101010001	0521	336	151
111100101101111	74557	30050	796F
11011010	332	318	0DA
10101100011	2543	1539	563
110100101	645	421	1A5
1000010011	1023	531	213
100000101	405	293	105
1000000010000	10020	3856	1010
110000001	601	385	181
100101100	454	601	12C
11000000001	3001	1537	601
101101011111100	55374	23292	5AFC
11101011010101101 1	726533	240987	3AD5B
1000001000001	10101	4161	1041
10010100001	2241	1185	4A1

7.8 D A B 10  
 Bi: 11110110101011  
 3 6 6 5 3 0

D C B A 9 8 7 6 5 4 3 2 1 0  
 Bi: 11110110101011  
 11 11 11 11 11 11 11 11 11 11

$$1 \cdot 16 + 11 \cdot 4 + 1 \cdot 2 + 1 \cdot 100 + 0 \cdot 8 + 1 \cdot 64 + 1 \cdot 4 + 0 \cdot 36 + 1 \cdot 25 + 0 \cdot 16 + 1 \cdot 9 + 0 \cdot 4 + 1 \cdot 1 + 1 \cdot 1$$

$$169 + 44 + 2 + 100 + 64 + 4 + 25 + 9 + 1 + 1 = 683_{10}$$

②.

Oct: 665  
~~665~~  
~~888~~

$$6 \cdot 64 + 8 \cdot 8 + 5 \cdot 1 = 384 + 64 + 5 = 437_{10}$$

Deci: 437  
 437 / 2 = 218 R 1  
 218 / 2 = 109 R 0  
 109 / 2 = 54 R 1  
 54 / 2 = 27 R 0  
 27 / 2 = 13 R 1  
 13 / 2 = 6 R 1  
 6 / 2 = 3 R 0  
 3 / 2 = 1 R 1  
 1 / 2 = 0 R 1

Bi: 110110101

437 / 16 = 27 R 5  
 27 / 16 = 1 R 11  
 11 / 16 = 0 R 11

Hexa: 7B5

③.

Hexa: DF12  
 0010  
 1011

Bi: 11011110010010  
 Oct: 57422

F E D C B A 9 8 7 6 5 4 3 2 1 0  
 Bi: 11011110010010

$$1 \cdot 256 + 1 \cdot 192 + 0 \cdot 128 + 1 \cdot 64 + 1 \cdot 32 + 1 \cdot 16 + 1 \cdot 8 + 1 \cdot 4 + 0 \cdot 2 + 0 \cdot 1 + 0 \cdot 0 + 0 \cdot 0 + 0 \cdot 0 + 0 \cdot 0 + 0 \cdot 0 + 0 \cdot 0 = 448$$

Deci: 448

④

Deci: 1011  
 1011 / 2 = 505 R 1  
 505 / 2 = 252 R 1  
 252 / 2 = 126 R 0  
 126 / 2 = 63 R 0  
 63 / 2 = 31 R 1  
 31 / 2 = 15 R 1  
 15 / 2 = 7 R 1  
 7 / 2 = 3 R 1  
 3 / 2 = 1 R 1  
 1 / 2 = 0 R 1

Bi: 1111110011

Oct: 1763

Hexa: 3F3

1011 / 8 = 126 R 6  
 126 / 8 = 15 R 6  
 15 / 8 = 1 R 7

1011 / 16 = 63 R 3  
 63 / 16 = 3 R 15



6.

Hexa: 757  
 Bi: 010101001  
 Octa: 5 2 7

$$\begin{array}{r} 2210 \\ 0527 \\ \hline 8888 \end{array}$$

$$0.448 + 5.64 + 2.8 + 7.0 = 320 + 76 = 336_{(10)}$$

6.

Bi: 11100101101111  
 7 4 5 5 7  
 7 9 6 F

Octa: 24557  
 Hexa: 746F

$$\begin{array}{r} 140121100876543210 \\ 177700101701117 \\ \hline 140121100876543210 \end{array}$$

$$\begin{aligned} & 1.7632 + 1.812 + 1.4096 + 0.247 + 0.0001 \\ & 0.512 + 1.256 + 0.728 + 1.64 + 1.32 + 0.76 + \\ & 7.8 + 1.4 + 1.2 + 1.0 = \\ & 320 + 76 + 8792 + 4096 + 1024 + 256 + \\ & 64 + 32 + 8 + 4 + 2 + 1 = 30050_{(10)} \end{aligned}$$

7.

Octa: 332  
 Bi: 0110101010  
 Hexa: 0 D A

$$\begin{array}{r} 0DA \\ 10^3 10^2 10^1 10^0 \end{array}$$

$$0.288 + 13.76 + 10.0 = 308 + 70 = 378_{(10)}$$

8.

Bi: 10101100011  
 5 6 3  
 2 5 4 3

$$\begin{array}{r} 563 \\ 10^3 10^2 10^1 10^0 \end{array}$$

$$5.288 + 6.76 + 3.7 = 1440 + 96 + 3 = 1539_{(10)}$$

Octa: 2543

Hexa: 563

9.

$$\begin{array}{r} 42712 \\ 2792 \\ \hline 02 01 01 01 01 01 \end{array}$$

$$\begin{array}{r} 42718 \\ 27 5218 \\ \hline 5 46 \end{array}$$

$$\begin{array}{r} 42716 \\ 101 26176 \\ \hline 5 29 \end{array}$$

Bi: 110100101  
 Octa: 645  
 Hexa: 7A5



10

Dec 5

3712  
13 26512  
11 065 73212  
↓ 065 12 6612  
↓ 0 06 3312  
0 13 1612  
↓ 0 812  
0 412  
0 212  
0 1

$$\begin{array}{r} 27 \overline{) 0.23} \\ \underline{18} \phantom{00} \\ 40 \phantom{00} \\ \underline{36} \phantom{00} \\ 40 \phantom{00} \\ \underline{36} \phantom{00} \\ 40 \phantom{00} \\ \underline{36} \phantom{00} \\ 40 \phantom{00} \end{array}$$

Octa: 7023

Hexa: 273

77

Hexa: 105  $\rightarrow$  <sup>Big</sup> 100000101  
Octal: 405

$$\begin{array}{r} 705 \\ 16 \overline{) 1676} \\ \underline{1676} \phantom{0} \\ 0 \end{array}$$
$$7.288 + 0.76 + 5.1 = 288 + 5 = 293$$

72

Hex: 7070  
 Bin: 1000000010000  
 Oct: 70020

$$\begin{array}{r}
 7070 \\
 \underline{76 \cdot 76} \\
 70020 \\
 \underline{888 \cdot 88} \\
 73840 + 0.440 + 0.64 + 2.8 + 0.1 = \\
 73840 + 76 = 3856 \quad (70)
 \end{array}$$

73

Octa:  $\underline{607}$   
 $\downarrow$   
 Bi:  $\underline{1100000071}$   
 $\downarrow$   
 Hex:  $\underline{781}$

$2^9 2^8 2^7 2^6 2^5 2^4 2^3 2^2$   
 $7 \cdot 256 + 7 \cdot 128 + 0 \cdot 64 + 0 \cdot 32 + 0 \cdot 16 + 0 \cdot 8 + 0 \cdot 4 + 0 \cdot 2 + 0 \cdot 1 =$   
 $256 + 728 + 7 = 385_{10}$

14

$$\begin{array}{r} \text{Bei: } 609 \overline{) 12} \\ \underline{609} \phantom{00} \\ 1200 \\ \underline{1200} \\ 0 \end{array}$$

Hex: 7 2 C  
Bin: 100 10 100  
Octal: 4 5 4



75.

Hexa: 607

$$\begin{array}{r} 607 \\ 16 \overline{) 1616} \end{array}$$

Bi: 011000000001

Octa: 3 0 0 1

$$6 \cdot 256 + 0 \cdot 16 + 1 \cdot 1 = 1536 + 1 = 1537_{10}$$

76.

Bi: 10110101111100

Octa: 5 5 3 7 4

Hexa: 5 A F C

5AFC

$$\begin{array}{r} 5AFC \\ 16 \overline{) 1616} \end{array}$$

$$5 \cdot 4096 + 10 \cdot 256 + 15 \cdot 16 + 12 \cdot 1 =$$

$$20480 + 2560 + 240 + 12 = 23292_{10}$$

77.

Bi: 1110101101011011

Octa: 7 2 6 5 3 3

Hexa: 3AD5B

$$\begin{array}{r} 3AD5B \\ 16 \overline{) 1616} \end{array}$$

$$3 \cdot 65536 + 10 \cdot 4096 + 13 \cdot 256 + 5 \cdot 16 + 11 \cdot 1 = 796608 + 40960 +$$

$$3328 + 80 + 11 =$$

$$240987_{10}$$

78.

Octa: 70707

$$\begin{array}{r} 7047 \\ 16 \overline{) 1616} \end{array}$$

Bi: 00100001000001

Hexa: 1047

$$7 \cdot 4096 + 0 \cdot 256 + 4 \cdot 16 + 7 \cdot 1 = 4096 + 64 + 7 = 4767_{10}$$

79.

Hexa: 4A7

$$\begin{array}{r} 4A7 \\ 16 \overline{) 1616} \end{array}$$

Bi: 010010100001

Octa: 2 2 4 1

$$4 \cdot 256 + 10 \cdot 16 + 7 \cdot 1 = 1024 + 160 + 7 = 1185_{10}$$