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1) Binario Decimal Hexadecimal octal

Binario	Decimal	Hexadecimal	octal
0 0 0 0	0	0	0
0 0 0 1	1	1	1
0 0 1 0	2	2	2
0 0 1 1	3	3	3
0 1 0 0	4	4	4
0 1 0 1	5	5	5
0 1 1 0	6	6	6
0 1 1 1	7	7	7
1 0 0 0	8	8	10
1 0 0 1	9	9	11
1 0 1 0	10	A	12
1 0 1 1	11	B	13
1 1 0 0	12	C	14
1 1 0 1	13	D	15
1 1 1 0	14	E	16
1 1 1 1	15	F	

Binario	Hexadecimal
0 1 1 1 1 1 1 1	7 F
0 1 0 0 0 0 0 0	4 0
0 1 0 0 0 0 0 0	4 0
0 1 0 0 0 0 0 0	4 0
0 1 1 1 1 1 1 1	7 F
0 0 0 0 0 0 0 1	0 1
0 0 0 0 0 0 0 1	0 1
0 1 1 1 1 1 1 1	7 F

Binario	Hexadecimal
0 0 0 0 1 0 0 0	0 8
0 0 0 1 0 1 0 0	1 4
0 0 1 0 0 0 1 0	2 2
0 1 0 0 0 0 0 1	4 1
0 1 1 1 1 1 1 1	7 F
0 1 0 0 0 0 0 1	4 1
0 1 0 0 0 0 0 1	4 1
0 1 0 0 0 0 0 1	4 1

Binario	Hexadecimal
0 1 0 0 0 0 0 1	4 1
0 1 1 0 0 0 0 1	6 1
0 1 0 1 0 0 0 1	5 1
0 1 0 0 1 0 0 1	4 9
0 1 0 0 0 1 0 1	4 5
0 1 0 0 0 0 1 1	4 3
0 1 0 0 0 0 0 1	4 1
0 0 0 0 0 0 0 0	0 0

2)

Dato	Base 10	Base 8	Base 2	Base 16
832_{10}	~~~~	$(1500)_8$	1101000000_2	$(340)_{16}$
171_8	$(313)_{10}$	~~~~	$(001111001)_2$	$(139)_{16}$
11101001_2	$(233)_{10}$	$(351)_8$	~~~~	$(E9)_{16}$
57_{16}	$(247)_{10}$	$(367)_8$	$(1110111)_2$	~~~~

$(832)_{10}$

832 | 8
0   10 | 8
      0   13 | 8
           5   1 | 8
                  0

$(1500)_8$

832 | 2
0   416 | 2
      0   208 | 2
           0   104 | 2
                0   52 | 2
                     0   26 | 2
                          0   13 | 2
                               1   6 | 2
                                    0   3 | 2
                                         1   1 | 2
                                              0

$(1101000000)_2$

832 | 16
0   52 | 16
     4   3 | 16
          3   0

$(340)_{16}$

$(171)_8$

$1 \times 8^2 + 7 \times 8^1 + 1 \times 8^0$

$256 + 56 + 1$

$\underbrace{\qquad}$

$(313)_{10}$

$(171)_8$

$(001100\,11\,001)_2$

$\underbrace{1}\ \underbrace{3}\ \underbrace{9}$

$(139)_{16}$

$(1110100 1)_2$

$(E9)_{16}$

$14 \times 16^1 + 9 \times 16^0$

$224 + 9 = (233)_{10}$

$(F7_{16})$

$15 \times 16^1 + 7 \times 16^0$

$240 + 7 = (247)_{10}$

$(011101001)_2$

$(3 \quad 5 \quad 1)_8$

$(111101111)_2$

(011110111)

$(3 \quad 6 \quad 7)_8$

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3)

		74_{10}	25_8	110_2	$A2_{16}$
832_{10}	+ 111001010	100100100000	110100001	111100010
47_8	11000011	110110101	100111011	11011011
11101001	100110011	00110001101	11101011	11000101 1
$F7_{16}$	101000001	10100100011	1111001	11001001

$832_{10} + 74_{10}$

$1101000000 + 1001010$

74

64	32	16	8	4	2	1
1	0	0	1	0	1	0

$$\begin{array}{r} 1101000000 + \\ 1001010 \\ \hline 1110001010 \end{array}$$

$$(25)_8$$

$$2 \times 8^1 + 5 \times 8^0$$

$$16 + 5 = (21)_{10}$$

16	8	4	2	1
1	0	1	0	1

```
  1 1 0 1 0 0 0 0 0 0
            1 0 1 0 1   x
  _____
  1 1 0 1 0 0 0 0 0 0
1 0 0 0 0 0 0 0 0 0 0
1 1 1 0 1 0 0 0 0 0 0
1 0 0 0 0 0 0 0 0 0
1 1 0 1 0 0 0 0 0
_____
1 0 0 0 1 0 0 0 1 0 0 0 0 0 0
```

$$(110)_2$$

$$1 \times 2^2 + 1 \times 2^1 + 0 \times 2^0$$

$$4 + 2 + 0$$

$$(6)_{10}$$

```
1 1 0 1 0 0 0 0 0 0
            1 1 0      -
_____
```

$$C_1 = 001 +$$

```
      001
      _____
      010
```

```
1 1 0 1 0 0 0 0 0
            0 1 0
_____
1 1 0 1 0 0 0 0 1 0
```

$$(A2)_{16}$$

$$(1010\ 0010)_2$$

```
1 1 0 1 0 0 0 0 0 0
  1 0 1 0 0 0 1 0    +
_____
1 1 1 1 1 0 0 0 1 0
```

$(471)_8$ $+ (74)_{10}$

$(100111001)_2$ (1001010)

$\overset{111}{100111001}$ $+$
1001010
———————————
110000011

———————————

$(25)_8$

100111001 $\times$
10101
———————————
$\overset{1111}{1}$
1100111001
$1\,000000000$
$1\,0011100\,1$
$0\,0000\,0000$
$100\,11\,100\,1$
———————————
$1\,1001101011101$

———————————

$(110)_2$

100111001 $-$
110

$C_n = \overset{1}{00}1\overset{1}{}$ $+$
———————————
010

100111001 $+$
010
———————————
100111011

———————————

$(A2)_{16}$

$\overset{1}{1}00111001$ $+$
10100010
———————————
$11101\,1011$

———————————

$(11101001)_2 + (10010010)_2$ ... $(74)_{10}$

```
    1    1
  1 1 1 0 1 0 0 1 +
    1 0 0 1 0 1 0
  1 0 0 1 1 0 0 1 1
```

$(25)_8$

```
      1 1 1 0 1 0 0 1  ×
              1 0 1 0 1
        1 1 1
      1 1 1 1 0 1 0 0 1
      1 0 0 0 0 0 0 0 0
    1 1 1 1 0 1 0 0 1
  1 0 0 0 0 0 0 0 0
  1 1 1 0 1 0 0 1
  1 0 0 1 1 0 0 0 1 1 1 0 1
```

$(110)_2$

```
  1 1 1 0 1 0 0 1  -
            1 1 0

    C_1 = 0 0 1  +
    C_2 = ___1___
        0 1 0
```

```
  1 1 1 0 1 0 0 1  +
            0 1 0
  1 1 1 0 1 0 1 1
```

$(12)_{16}$

```
      1 1
  1 1 1 0 1 0 0 1  +
  1 0 1 0 0 0 1 0
1 1 1 0 0 0 1 0 1 1
```

$(F7)_{16}$ $(74)_{10}$

1111 0111 + 1001010

   1 1 1 1 1
  1 1 1 1 0 1 1 1 +
    1 0 0 1 0 1 0
1 0 1 0 0 0 0 0 1

$(25)_8$

   1 1 1 1 0 1 1 1   x
         1 0 1 0 1
    1 1 1 1 0 1 1 1
   0 0 0 0 0 0 0 0
  1 1 1 1 0 1 1 1
 0 0 0 0 0 0 0 0
1 1 1 1 0 1 1 1
1 0 1 0 0 0 1 0 0 0 0 1 1

          0   1   0   1

---

1 1 1 1 0 1 1 1   —   1 1 1 1 0 1 1 1   +
        1 1 0   0 1 0
              1 1 1 1 1 0 0 1

$C_1 = 0 0 1$ +
$C_2 = 0 1 0$

$(A2)_{16}$

   1 1 1 1 0 1 1 1   +
   1 0 1 0 0 0 1 0
 1 1 0 0 1 1 0 0 1

4)

$$(33,21)_{10}$$

32	16	8	4	2	1
1	0	0	0	1	1

0	1	0	0	0	1	1	6

$$(-135)_{10}$$

128	64	32	16	8	4	2	1
1	0	0	0	0	1	1	1

1	1	0	0	0	0	1	8