

Convert the following numbers using an appropriate method:

1.  $10000001101100,11100111_{(2)} = ?_{(8)}$
2.  $1111001000\ 0001001010,1101111001\ 011_{(2)} = ?_{(16)}$
3.  $11024,7501_{(8)} = ?_{(2)}$
4.  $BC13F,57032_{(16)} = ?_{(2)}$
5.  $1230,321_{(4)} = ?_{(8)}$
6.  $AB650,1FE_{(16)} = ?_{(8)}$
7.  $1C3D,7A8_{(8)} = ?_{(4)}$
8.  $63401,527_{(8)} = ?_{(16)}$
9.  $3842,16_{(10)} = ?_{(5)}$
10.  $10379,25_{(10)} = ?_{(7)}$
11.  $2653,14_{(10)} = ?_{(6)}$
12.  $222,22_{(10)} = ?_{(2)}$
13.  $3210,23_{(4)} = ?_{(10)}$
14.  $3041,23_{(5)} = ?_{(10)}$
15.  $1735,62_{(8)} = ?_{(10)}$
16.  $10111010011,101_{(2)} = ?_{(10)}$
17.  $2122,12_{(3)} = ?_{(5)}$
18.  $1043,21_{(5)} = ?_{(7)}$
19.  $2013,13_{(4)} = ?_{(6)}$
20.  $1054,32_{(6)} = ?_{(16)}$
21.  $1467,32_{(8)} = ?_{(5)}$
22.  $2510,43_{(7)} = ?_{(3)}$
23.  $7048,56_{(9)} = ?_{(4)}$
24.  $BC0D,A2_{(16)} = ?_{(6)}$

Results:

For 1-8 rapid conversions are applied:

1.  $20154,716_{(8)}$
2.  $F204A,DE58_{(16)}$
3.  $1001000010\ 100,1111010000\ 01_{(2)}$
4.  $101111000\ 00100111111,0101011100\ 000011001_{(2)}$
5.  $154,71_{(8)}$
6.  $2533120,0776_{(8)}$
7.  $1300331,13222_{(4)}$
8.  $6701,CB8_{(16)}$

For 9-12 the method of successive divisions/multiplications is applied, calculus in the source base: 10.

9.  $110332,04_{(5)}$
10.  $42155,(10)_{(7)}$
11.  $20141,05_{(6)}$
12.  $11011110,0011_{(2)}$

For 13-16 the substitution method is applied, calculus in the destination base: 10.

- 13. 228,6875
- 14. 396,52
- 15. 989,78125
- 16. 1491,625

For 17-20 the substitution method is applied, calculus in the destination base.

- 17. 241,23<sub>(5)</sub>
- 18. 301,26<sub>(7)</sub>
- 19. 343,234<sub>(6)</sub>
- 20. FA,6E<sub>(16)</sub>

For 21-24 the method of successive divisions/multiplications is applied, calculus in the source base.

- 21. 11243,2003<sub>(5)</sub>
- 22. 1021202,122<sub>(3)</sub>
- 23. 1100123,22<sub>(4)</sub>
- 24. 1010455,14<sub>(6)</sub>