

Università degli Studi di Milano

Laurea in Sicurezza dei sistemi e delle reti informatiche

Esercizi di conversione di base (solo testo)

STEFANO FERRARI

Fondamenti di informatica per la sicurezza

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Esercizi

1. Esercizi di conversione in base decimale

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

- | | | | |
|---------------------------------|-------|--------------------------------|-------|
| 1. $(11212)_4 = (x)_{10}$ | [358] | 16. $(1124)_9 = (x)_{10}$ | [832] |
| 2. $(563)_{12} = (x)_{10}$ | [795] | 17. $(11330)_4 = (x)_{10}$ | [380] |
| 3. $(355)_9 = (x)_{10}$ | [293] | 18. $(2211)_7 = (x)_{10}$ | [792] |
| 4. $(16A)_{14} = (x)_{10}$ | [290] | 19. $(7G)_{17} = (x)_{10}$ | [135] |
| 5. $(12110)_3 = (x)_{10}$ | [147] | 20. $(11132)_4 = (x)_{10}$ | [350] |
| 6. $(12231)_4 = (x)_{10}$ | [429] | 21. $(110111000)_2 = (x)_{10}$ | [440] |
| 7. $(1525)_6 = (x)_{10}$ | [413] | 22. $(1110)_8 = (x)_{10}$ | [584] |
| 8. $(1088)_9 = (x)_{10}$ | [809] | 23. $(26)_{19} = (x)_{10}$ | [44] |
| 9. $(65)_8 = (x)_{10}$ | [53] | 24. $(583)_{12} = (x)_{10}$ | [819] |
| 10. $(247)_{16} = (x)_{10}$ | [583] | 25. $(390)_{14} = (x)_{10}$ | [714] |
| 11. $(10423)_5 = (x)_{10}$ | [738] | 26. $(83)_{11} = (x)_{10}$ | [91] |
| 12. $(54)_7 = (x)_{10}$ | [39] | 27. $(154)_{14} = (x)_{10}$ | [270] |
| 13. $(200022)_3 = (x)_{10}$ | [494] | 28. $(2I)_{19} = (x)_{10}$ | [56] |
| 14. $(1011111110)_2 = (x)_{10}$ | [766] | 29. $(80)_{16} = (x)_{10}$ | [128] |
| 15. $(1D2)_{16} = (x)_{10}$ | [466] | 30. $(111021)_3 = (x)_{10}$ | [358] |

2. Esercizi di conversione da base decimale

Convertire in notazione posizionale nella base indicata i seguenti numeri decimali, calcolando l'opportuno numerale x :

- | | | | |
|----------------------------|---------|-----------------------------|-----------|
| 1. $(826)_{10} = (x)_{11}$ | [691] | 10. $(764)_{10} = (x)_{17}$ | [2AG] |
| 2. $(549)_{10} = (x)_{17}$ | [1F5] | 11. $(404)_{10} = (x)_9$ | [488] |
| 3. $(397)_{10} = (x)_{16}$ | [18D] | 12. $(368)_{10} = (x)_6$ | [1412] |
| 4. $(17)_{10} = (x)_{16}$ | [11] | 13. $(95)_{10} = (x)_8$ | [137] |
| 5. $(24)_{10} = (x)_2$ | [11000] | 14. $(632)_{10} = (x)_{15}$ | [2C2] |
| 6. $(396)_{10} = (x)_{19}$ | [11G] | 15. $(928)_{10} = (x)_3$ | [1021101] |
| 7. $(855)_{10} = (x)_9$ | [1150] | 16. $(359)_{10} = (x)_{13}$ | [218] |
| 8. $(956)_{10} = (x)_{13}$ | [587] | 17. $(942)_{10} = (x)_9$ | [1256] |
| 9. $(867)_{10} = (x)_{17}$ | [300] | 18. $(364)_{10} = (x)_6$ | [1404] |
| | | 19. $(256)_{10} = (x)_6$ | [1104] |

- | | | | |
|-----------------------------|--------|-----------------------------|----------|
| 20. $(910)_{10} = (x)_{15}$ | [40A] | 26. $(899)_{10} = (x)_{19}$ | [296] |
| 21. $(641)_{10} = (x)_{16}$ | [281] | 27. $(116)_{10} = (x)_{16}$ | [74] |
| 22. $(172)_{10} = (x)_9$ | [211] | 28. $(319)_{10} = (x)_{13}$ | [1B7] |
| 23. $(564)_{10} = (x)_7$ | [1434] | 29. $(347)_{10} = (x)_3$ | [110212] |
| 24. $(913)_{10} = (x)_{14}$ | [493] | 30. $(877)_{10} = (x)_{14}$ | [469] |
| 25. $(670)_{10} = (x)_{19}$ | [1G5] | | |

3. Esercizi di conversione da base binaria a base decimale

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

- | | | | |
|---------------------------------|-------|---------------------------------|-------|
| 1. $(1101000010)_2 = (x)_{10}$ | [834] | 16. $(1000101000)_2 = (x)_{10}$ | [552] |
| 2. $(1100101001)_2 = (x)_{10}$ | [809] | 17. $(1111001111)_2 = (x)_{10}$ | [975] |
| 3. $(1011100000)_2 = (x)_{10}$ | [736] | 18. $(1000110110)_2 = (x)_{10}$ | [566] |
| 4. $(1010100001)_2 = (x)_{10}$ | [673] | 19. $(10000110)_2 = (x)_{10}$ | [134] |
| 5. $(100000011)_2 = (x)_{10}$ | [259] | 20. $(11000111)_2 = (x)_{10}$ | [199] |
| 6. $(1100011010)_2 = (x)_{10}$ | [794] | 21. $(101)_2 = (x)_{10}$ | [5] |
| 7. $(1101010011)_2 = (x)_{10}$ | [851] | 22. $(1101100100)_2 = (x)_{10}$ | [868] |
| 8. $(100010011)_2 = (x)_{10}$ | [275] | 23. $(110101100)_2 = (x)_{10}$ | [428] |
| 9. $(110111011)_2 = (x)_{10}$ | [443] | 24. $(111001101)_2 = (x)_{10}$ | [461] |
| 10. $(1111000)_2 = (x)_{10}$ | [120] | 25. $(1000011010)_2 = (x)_{10}$ | [538] |
| 11. $(1111111)_2 = (x)_{10}$ | [127] | 26. $(110110)_2 = (x)_{10}$ | [54] |
| 12. $(100010111)_2 = (x)_{10}$ | [279] | 27. $(111000010)_2 = (x)_{10}$ | [450] |
| 13. $(1011001)_2 = (x)_{10}$ | [89] | 28. $(1001111)_2 = (x)_{10}$ | [79] |
| 14. $(11111010)_2 = (x)_{10}$ | [250] | 29. $(11101)_2 = (x)_{10}$ | [29] |
| 15. $(1101001001)_2 = (x)_{10}$ | [841] | 30. $(101000111)_2 = (x)_{10}$ | [327] |

4. Esercizi di conversione da base binaria a base ottale

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

- | | | | |
|-----------------------------|--------|----------------------------|-------|
| 1. $(1101100100)_2 = (x)_8$ | [1544] | 5. $(100111010)_2 = (x)_8$ | [472] |
| 2. $(1011110)_2 = (x)_8$ | [136] | 6. $(11001100)_2 = (x)_8$ | [314] |
| 3. $(1101101000)_2 = (x)_8$ | [1550] | 7. $(11011111)_2 = (x)_8$ | [337] |
| 4. $(110111010)_2 = (x)_8$ | [672] | | |

8. $(1100010101)_2 = (x)_8$	[1425]	20. $(1000111)_2 = (x)_8$	[107]
9. $(111)_2 = (x)_8$	[7]	21. $(1110111110)_2 = (x)_8$	[1676]
10. $(111110000)_2 = (x)_8$	[760]	22. $(1000001111)_2 = (x)_8$	[1017]
11. $(101000011)_2 = (x)_8$	[503]	23. $(1110110110)_2 = (x)_8$	[1666]
12. $(1110001001)_2 = (x)_8$	[1611]	24. $(111100111)_2 = (x)_8$	[747]
13. $(111111010)_2 = (x)_8$	[772]	25. $(10101111)_2 = (x)_8$	[257]
14. $(1010100111)_2 = (x)_8$	[1247]	26. $(110111011)_2 = (x)_8$	[673]
15. $(1100110000)_2 = (x)_8$	[1460]	27. $(1101010101)_2 = (x)_8$	[1525]
16. $(111011110)_2 = (x)_8$	[736]	28. $(1101010111)_2 = (x)_8$	[1527]
17. $(1011101111)_2 = (x)_8$	[1357]	29. $(101000010)_2 = (x)_8$	[502]
18. $(111101011)_2 = (x)_8$	[753]	30. $(110001111)_2 = (x)_8$	[617]
19. $(1101)_2 = (x)_8$	[15]		

5. Esercizi di conversione da base binaria a base esadecimale

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

1. $(1000100000)_2 = (x)_{16}$	[220]	16. $(100100100)_2 = (x)_{16}$	[124]
2. $(10000110)_2 = (x)_{16}$	[86]	17. $(1000011000)_2 = (x)_{16}$	[218]
3. $(1111100111)_2 = (x)_{16}$	[3E7]	18. $(111110)_2 = (x)_{16}$	[3E]
4. $(111000100)_2 = (x)_{16}$	[1C4]	19. $(110000)_2 = (x)_{16}$	[30]
5. $(1100000101)_2 = (x)_{16}$	[305]	20. $(1110101)_2 = (x)_{16}$	[75]
6. $(1010111011)_2 = (x)_{16}$	[2BB]	21. $(101011110)_2 = (x)_{16}$	[15E]
7. $(1011110100)_2 = (x)_{16}$	[2F4]	22. $(11001100)_2 = (x)_{16}$	[CC]
8. $(11010110)_2 = (x)_{16}$	[D6]	23. $(101100)_2 = (x)_{16}$	[2C]
9. $(1010101)_2 = (x)_{16}$	[55]	24. $(1001101100)_2 = (x)_{16}$	[26C]
10. $(1010011110)_2 = (x)_{16}$	[29E]	25. $(11101001)_2 = (x)_{16}$	[E9]
11. $(1011110100)_2 = (x)_{16}$	[2F4]	26. $(1100110101)_2 = (x)_{16}$	[335]
12. $(11100110)_2 = (x)_{16}$	[E6]	27. $(1001011100)_2 = (x)_{16}$	[25C]
13. $(1011101)_2 = (x)_{16}$	[5D]	28. $(1100000110)_2 = (x)_{16}$	[306]
14. $(11101100)_2 = (x)_{16}$	[EC]	29. $(1001100)_2 = (x)_{16}$	[4C]
15. $(1011110011)_2 = (x)_{16}$	[2F3]	30. $(1001110101)_2 = (x)_{16}$	[275]

6. Esercizi di conversione da base decimale a base binaria

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

1. $(536)_{10} = (x)_2$	[1000011000]	16. $(290)_{10} = (x)_2$	[100100010]
2. $(175)_{10} = (x)_2$	[10101111]	17. $(795)_{10} = (x)_2$	[1100011011]
3. $(393)_{10} = (x)_2$	[110001001]	18. $(159)_{10} = (x)_2$	[10011111]
4. $(377)_{10} = (x)_2$	[101111001]	19. $(447)_{10} = (x)_2$	[110111111]
5. $(548)_{10} = (x)_2$	[1000100100]	20. $(307)_{10} = (x)_2$	[100110011]
6. $(170)_{10} = (x)_2$	[10101010]	21. $(946)_{10} = (x)_2$	[1110110010]
7. $(368)_{10} = (x)_2$	[101110000]	22. $(827)_{10} = (x)_2$	[1100111011]
8. $(83)_{10} = (x)_2$	[1010011]	23. $(494)_{10} = (x)_2$	[111101110]
9. $(391)_{10} = (x)_2$	[110000111]	24. $(810)_{10} = (x)_2$	[1100101010]
10. $(699)_{10} = (x)_2$	[1010111011]	25. $(847)_{10} = (x)_2$	[1101001111]
11. $(636)_{10} = (x)_2$	[1001111100]	26. $(398)_{10} = (x)_2$	[110001110]
12. $(20)_{10} = (x)_2$	[10100]	27. $(874)_{10} = (x)_2$	[1101101010]
13. $(740)_{10} = (x)_2$	[1011100100]	28. $(554)_{10} = (x)_2$	[1000101010]
14. $(435)_{10} = (x)_2$	[110110011]	29. $(15)_{10} = (x)_2$	[1111]
15. $(992)_{10} = (x)_2$	[1111100000]	30. $(639)_{10} = (x)_2$	[1001111111]

7. Esercizi di conversione da base ottale a base binaria

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

1. $(275)_8 = (x)_2$	[10111101]	11. $(1446)_8 = (x)_2$	[1100100110]
2. $(1234)_8 = (x)_2$	[1010011100]	12. $(1505)_8 = (x)_2$	[1101000101]
3. $(1211)_8 = (x)_2$	[1010001001]	13. $(1254)_8 = (x)_2$	[1010101100]
4. $(1257)_8 = (x)_2$	[1010101111]	14. $(1063)_8 = (x)_2$	[1000110011]
5. $(504)_8 = (x)_2$	[101000100]	15. $(1041)_8 = (x)_2$	[1000100001]
6. $(460)_8 = (x)_2$	[100110000]	16. $(312)_8 = (x)_2$	[11001010]
7. $(1477)_8 = (x)_2$	[1100111111]	17. $(761)_8 = (x)_2$	[111110001]
8. $(1204)_8 = (x)_2$	[1010000100]	18. $(662)_8 = (x)_2$	[110110010]
9. $(1544)_8 = (x)_2$	[1101100100]	19. $(674)_8 = (x)_2$	[110111100]
10. $(316)_8 = (x)_2$	[11001110]	20. $(337)_8 = (x)_2$	[11011111]

21. $(454)_8 = (x)_2$	[100101100]	26. $(1325)_8 = (x)_2$	[1011010101]
22. $(175)_8 = (x)_2$	[1111101]	27. $(1507)_8 = (x)_2$	[1101000111]
23. $(630)_8 = (x)_2$	[110011000]	28. $(413)_8 = (x)_2$	[100001011]
24. $(1417)_8 = (x)_2$	[1100001111]	29. $(1527)_8 = (x)_2$	[1101010111]
25. $(106)_8 = (x)_2$	[1000110]	30. $(353)_8 = (x)_2$	[11101011]

8. Esercizi di conversione da base esadecimale a base binaria

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

1. $(258)_{16} = (x)_2$	[1001011000]	16. $(277)_{16} = (x)_2$	[1001110111]
2. $(366)_{16} = (x)_2$	[1101100110]	17. $(227)_{16} = (x)_2$	[1000100111]
3. $(14B)_{16} = (x)_2$	[101001011]	18. $(2DE)_{16} = (x)_2$	[1011011110]
4. $(B0)_{16} = (x)_2$	[10110000]	19. $(148)_{16} = (x)_2$	[101001000]
5. $(233)_{16} = (x)_2$	[1000110011]	20. $(36)_{16} = (x)_2$	[110110]
6. $(E0)_{16} = (x)_2$	[11100000]	21. $(60)_{16} = (x)_2$	[1100000]
7. $(305)_{16} = (x)_2$	[1100000101]	22. $(F6)_{16} = (x)_2$	[11110110]
8. $(7D)_{16} = (x)_2$	[1111101]	23. $(6)_{16} = (x)_2$	[110]
9. $(28)_{16} = (x)_2$	[101000]	24. $(17B)_{16} = (x)_2$	[101111011]
10. $(164)_{16} = (x)_2$	[101100100]	25. $(2D9)_{16} = (x)_2$	[1011011001]
11. $(18B)_{16} = (x)_2$	[110001011]	26. $(119)_{16} = (x)_2$	[100011001]
12. $(28D)_{16} = (x)_2$	[1010001101]	27. $(282)_{16} = (x)_2$	[1010000010]
13. $(18A)_{16} = (x)_2$	[110001010]	28. $(103)_{16} = (x)_2$	[100000011]
14. $(39)_{16} = (x)_2$	[111001]	29. $(100)_{16} = (x)_2$	[100000000]
15. $(348)_{16} = (x)_2$	[1101001000]	30. $(2C6)_{16} = (x)_2$	[1011000110]

9. Esercizi di conversione da base decimale a base esadecimale

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

1. $(815)_{10} = (x)_{16}$	[32F]	6. $(219)_{10} = (x)_{16}$	[DB]
2. $(355)_{10} = (x)_{16}$	[163]	7. $(590)_{10} = (x)_{16}$	[24E]
3. $(412)_{10} = (x)_{16}$	[19C]	8. $(246)_{10} = (x)_{16}$	[F6]
4. $(767)_{10} = (x)_{16}$	[2FF]	9. $(578)_{10} = (x)_{16}$	[242]
5. $(757)_{10} = (x)_{16}$	[2F5]		

10. $(848)_{10} = (x)_{16}$	[350]	21. $(980)_{10} = (x)_{16}$	[3D4]
11. $(611)_{10} = (x)_{16}$	[263]	22. $(787)_{10} = (x)_{16}$	[313]
12. $(754)_{10} = (x)_{16}$	[2F2]	23. $(321)_{10} = (x)_{16}$	[141]
13. $(31)_{10} = (x)_{16}$	[1F]	24. $(955)_{10} = (x)_{16}$	[3BB]
14. $(876)_{10} = (x)_{16}$	[36C]	25. $(284)_{10} = (x)_{16}$	[11C]
15. $(29)_{10} = (x)_{16}$	[1D]	26. $(945)_{10} = (x)_{16}$	[3B1]
16. $(451)_{10} = (x)_{16}$	[1C3]	27. $(984)_{10} = (x)_{16}$	[3D8]
17. $(869)_{10} = (x)_{16}$	[365]	28. $(760)_{10} = (x)_{16}$	[2F8]
18. $(790)_{10} = (x)_{16}$	[316]	29. $(485)_{10} = (x)_{16}$	[1E5]
19. $(583)_{10} = (x)_{16}$	[247]	30. $(883)_{10} = (x)_{16}$	[373]
20. $(67)_{10} = (x)_{16}$	[43]		

10. Esercizi di conversione da base decimale a base ottale

Convertire in notazione decimale i seguenti numeri, calcolando l'opportuno numerale x :

1. $(500)_{10} = (x)_8$	[764]	16. $(171)_{10} = (x)_8$	[253]
2. $(860)_{10} = (x)_8$	[1534]	17. $(430)_{10} = (x)_8$	[656]
3. $(918)_{10} = (x)_8$	[1626]	18. $(531)_{10} = (x)_8$	[1023]
4. $(970)_{10} = (x)_8$	[1712]	19. $(397)_{10} = (x)_8$	[615]
5. $(307)_{10} = (x)_8$	[463]	20. $(198)_{10} = (x)_8$	[306]
6. $(16)_{10} = (x)_8$	[20]	21. $(740)_{10} = (x)_8$	[1344]
7. $(708)_{10} = (x)_8$	[1304]	22. $(787)_{10} = (x)_8$	[1423]
8. $(3)_{10} = (x)_8$	[3]	23. $(469)_{10} = (x)_8$	[725]
9. $(61)_{10} = (x)_8$	[75]	24. $(298)_{10} = (x)_8$	[452]
10. $(974)_{10} = (x)_8$	[1716]	25. $(553)_{10} = (x)_8$	[1051]
11. $(882)_{10} = (x)_8$	[1562]	26. $(480)_{10} = (x)_8$	[740]
12. $(43)_{10} = (x)_8$	[53]	27. $(845)_{10} = (x)_8$	[1515]
13. $(104)_{10} = (x)_8$	[150]	28. $(378)_{10} = (x)_8$	[572]
14. $(220)_{10} = (x)_8$	[334]	29. $(619)_{10} = (x)_8$	[1153]
15. $(303)_{10} = (x)_8$	[457]	30. $(746)_{10} = (x)_8$	[1352]

11. Esercizi di conversione di base

Convertire i seguenti numeri, calcolando l'opportuno numerale x :

- | | | | |
|--------------------------------|-----------|-----------------------------|---------|
| 1. $(33213)_4 = (x)_{16}$ | [3E7] | 16. $(591)_{12} = (x)_4$ | [30331] |
| 2. $(246)_7 = (x)_{11}$ | [110] | 17. $(374)_{10} = (x)_7$ | [1043] |
| 3. $(2423)_7 = (x)_8$ | [1603] | 18. $(24A)_{13} = (x)_{10}$ | [400] |
| 4. $(4334)_5 = (x)_{15}$ | [299] | 19. $(57)_9 = (x)_{13}$ | [40] |
| 5. $(10103)_4 = (x)_7$ | [542] | 20. $(429)_{13} = (x)_4$ | [23013] |
| 6. $(703)_{11} = (x)_3$ | [1011111] | 21. $(850)_9 = (x)_4$ | [22311] |
| 7. $(1100000000)_2 = (x)_{10}$ | [768] | 22. $(2BD)_{15} = (x)_{12}$ | [444] |
| 8. $(120111)_3 = (x)_{12}$ | [2AA] | 23. $(30D)_{16} = (x)_{12}$ | [551] |
| 9. $(1556)_7 = (x)_6$ | [2525] | 24. $(1343)_8 = (x)_{11}$ | [612] |
| 10. $(136)_{15} = (x)_{16}$ | [114] | 25. $(16A)_{14} = (x)_{10}$ | [290] |
| 11. $(1100101111)_2 = (x)_3$ | [1010012] | 26. $(28B)_{15} = (x)_{11}$ | [489] |
| 12. $(52)_{11} = (x)_6$ | [133] | 27. $(55)_{11} = (x)_8$ | [74] |
| 13. $(237)_9 = (x)_6$ | [524] | 28. $(10130)_5 = (x)_9$ | [818] |
| 14. $(39C)_{13} = (x)_{12}$ | [450] | 29. $(521)_9 = (x)_8$ | [650] |
| 15. $(3401)_6 = (x)_4$ | [30121] | 30. $(1211)_6 = (x)_9$ | [357] |