

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. $(11210)_5 = (x)_{10}$ | [805] | 16. $(41C)_{14} = (x)_{10}$ | [810] |
| 2. $(147)_{12} = (x)_{10}$ | [199] | 17. $(1100110011)_2 = (x)_{10}$ | [819] |
| 3. $(12B)_{18} = (x)_{10}$ | [371] | 18. $(420)_5 = (x)_{10}$ | [110] |
| 4. $(1670)_8 = (x)_{10}$ | [952] | 19. $(1C9)_{15} = (x)_{10}$ | [414] |
| 5. $(212)_{11} = (x)_{10}$ | [255] | 20. $(2CA)_{16} = (x)_{10}$ | [714] |
| 6. $(638)_{12} = (x)_{10}$ | [908] | 21. $(1100110010)_2 = (x)_{10}$ | [818] |
| 7. $(120)_4 = (x)_{10}$ | [24] | 22. $(307)_{12} = (x)_{10}$ | [439] |
| 8. $(1110001011)_2 = (x)_{10}$ | [907] | 23. $(21322)_4 = (x)_{10}$ | [634] |
| 9. $(I8)_{19} = (x)_{10}$ | [350] | 24. $(1010000111)_2 = (x)_{10}$ | [647] |
| 10. $(654)_8 = (x)_{10}$ | [428] | 25. $(3033)_4 = (x)_{10}$ | [207] |
| 11. $(3D4)_{16} = (x)_{10}$ | [980] | 26. $(201)_9 = (x)_{10}$ | [163] |
| 12. $(351)_7 = (x)_{10}$ | [183] | 27. $(11120)_4 = (x)_{10}$ | [344] |
| 13. $(1DE)_{15} = (x)_{10}$ | [434] | 28. $(20A)_{13} = (x)_{10}$ | [348] |
| 14. $(37C)_{16} = (x)_{10}$ | [892] | 29. $(1064)_8 = (x)_{10}$ | [564] |
| 15. $(226)_{12} = (x)_{10}$ | [318] | 30. $(2AE)_{15} = (x)_{10}$ | [614] |

2. Esercizi di conversione da base decimale

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

- | | | | |
|----------------------------|------------|-----------------------------|---------|
| 1. $(311)_{10} = (x)_6$ | [1235] | 10. $(434)_{10} = (x)_{17}$ | [189] |
| 2. $(267)_{10} = (x)_6$ | [1123] | 11. $(994)_{10} = (x)_6$ | [4334] |
| 3. $(223)_{10} = (x)_2$ | [11011111] | 12. $(195)_{10} = (x)_6$ | [523] |
| 4. $(404)_{10} = (x)_9$ | [488] | 13. $(105)_{10} = (x)_{12}$ | [89] |
| 5. $(197)_{10} = (x)_{16}$ | [C5] | 14. $(812)_{10} = (x)_9$ | [1102] |
| 6. $(584)_{10} = (x)_{11}$ | [491] | 15. $(373)_{10} = (x)_9$ | [454] |
| 7. $(233)_{10} = (x)_2$ | [11101001] | 16. $(185)_{10} = (x)_{14}$ | [D3] |
| 8. $(519)_{10} = (x)_5$ | [4034] | 17. $(139)_{10} = (x)_6$ | [351] |
| 9. $(331)_{10} = (x)_5$ | [2311] | 18. $(760)_{10} = (x)_5$ | [11020] |

- | | | | |
|-----------------------------|-------|-----------------------------|-----------|
| 19. $(766)_{10} = (x)_{11}$ | [637] | 25. $(497)_{10} = (x)_{15}$ | [232] |
| 20. $(189)_{10} = (x)_{17}$ | [B2] | 26. $(588)_{10} = (x)_{19}$ | [1BI] |
| 21. $(718)_{10} = (x)_{18}$ | [23G] | 27. $(757)_{10} = (x)_3$ | [1001001] |
| 22. $(914)_{10} = (x)_{19}$ | [2A2] | 28. $(601)_{10} = (x)_{13}$ | [373] |
| 23. $(677)_{10} = (x)_{18}$ | [21B] | 29. $(198)_{10} = (x)_5$ | [1243] |
| 24. $(255)_{10} = (x)_7$ | [513] | 30. $(759)_{10} = (x)_8$ | [1367] |

3. Esercizi di conversione da base binaria a base decimale

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

- | | | | |
|---------------------------------|-------|---------------------------------|-------|
| 1. $(1101111010)_2 = (x)_{10}$ | [890] | 16. $(1111100000)_2 = (x)_{10}$ | [992] |
| 2. $(101110)_2 = (x)_{10}$ | [46] | 17. $(1001101101)_2 = (x)_{10}$ | [621] |
| 3. $(1111011101)_2 = (x)_{10}$ | [989] | 18. $(100001110)_2 = (x)_{10}$ | [270] |
| 4. $(101111010)_2 = (x)_{10}$ | [378] | 19. $(1001100101)_2 = (x)_{10}$ | [613] |
| 5. $(100001000)_2 = (x)_{10}$ | [264] | 20. $(1000010100)_2 = (x)_{10}$ | [532] |
| 6. $(1000011011)_2 = (x)_{10}$ | [539] | 21. $(100100111)_2 = (x)_{10}$ | [295] |
| 7. $(111011010)_2 = (x)_{10}$ | [474] | 22. $(111110110)_2 = (x)_{10}$ | [502] |
| 8. $(100001)_2 = (x)_{10}$ | [33] | 23. $(1110)_2 = (x)_{10}$ | [14] |
| 9. $(110100001)_2 = (x)_{10}$ | [417] | 24. $(1101000111)_2 = (x)_{10}$ | [839] |
| 10. $(1010000000)_2 = (x)_{10}$ | [640] | 25. $(111110)_2 = (x)_{10}$ | [62] |
| 11. $(111100)_2 = (x)_{10}$ | [60] | 26. $(10010101)_2 = (x)_{10}$ | [149] |
| 12. $(111111100)_2 = (x)_{10}$ | [508] | 27. $(1011010011)_2 = (x)_{10}$ | [723] |
| 13. $(1000000001)_2 = (x)_{10}$ | [513] | 28. $(110011110)_2 = (x)_{10}$ | [414] |
| 14. $(1000000111)_2 = (x)_{10}$ | [519] | 29. $(1001111001)_2 = (x)_{10}$ | [633] |
| 15. $(10101111)_2 = (x)_{10}$ | [175] | 30. $(1101001010)_2 = (x)_{10}$ | [842] |

4. Esercizi di conversione da base binaria a base ottale

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

- | | | | |
|-----------------------------|--------|-----------------------------|--------|
| 1. $(101010011)_2 = (x)_8$ | [523] | 4. $(1010100100)_2 = (x)_8$ | [1244] |
| 2. $(1101011100)_2 = (x)_8$ | [1534] | 5. $(110101100)_2 = (x)_8$ | [654] |
| 3. $(100011000)_2 = (x)_8$ | [430] | 6. $(101110)_2 = (x)_8$ | [56] |

7. $(100101110)_2 = (x)_8$	[456]	19. $(110100000)_2 = (x)_8$	[640]
8. $(1101010110)_2 = (x)_8$	[1526]	20. $(1011100010)_2 = (x)_8$	[1342]
9. $(1010010011)_2 = (x)_8$	[1223]	21. $(1010110000)_2 = (x)_8$	[1260]
10. $(1011011111)_2 = (x)_8$	[1337]	22. $(1110100101)_2 = (x)_8$	[1645]
11. $(1001100)_2 = (x)_8$	[114]	23. $(1100110111)_2 = (x)_8$	[1467]
12. $(1011001111)_2 = (x)_8$	[1317]	24. $(1110110101)_2 = (x)_8$	[1665]
13. $(110000010)_2 = (x)_8$	[602]	25. $(1010100)_2 = (x)_8$	[124]
14. $(111110001)_2 = (x)_8$	[761]	26. $(1011111011)_2 = (x)_8$	[1373]
15. $(101100010)_2 = (x)_8$	[542]	27. $(1101111010)_2 = (x)_8$	[1572]
16. $(110110110)_2 = (x)_8$	[666]	28. $(1011011101)_2 = (x)_8$	[1335]
17. $(1101100111)_2 = (x)_8$	[1547]	29. $(1010100011)_2 = (x)_8$	[1243]
18. $(1101111111)_2 = (x)_8$	[1577]	30. $(1001110010)_2 = (x)_8$	[1162]

5. Esercizi di conversione da base binaria a base esadecimale

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

1. $(100001111)_2 = (x)_{16}$	[10F]	16. $(110100101)_2 = (x)_{16}$	[1A5]
2. $(1100011110)_2 = (x)_{16}$	[31E]	17. $(10011110)_2 = (x)_{16}$	[9E]
3. $(1101100011)_2 = (x)_{16}$	[363]	18. $(111100111)_2 = (x)_{16}$	[1E7]
4. $(10000010)_2 = (x)_{16}$	[82]	19. $(1000110010)_2 = (x)_{16}$	[232]
5. $(10100011)_2 = (x)_{16}$	[A3]	20. $(101001100)_2 = (x)_{16}$	[14C]
6. $(1110101001)_2 = (x)_{16}$	[3A9]	21. $(1101100110)_2 = (x)_{16}$	[366]
7. $(10111001)_2 = (x)_{16}$	[B9]	22. $(1101110010)_2 = (x)_{16}$	[372]
8. $(10010001)_2 = (x)_{16}$	[91]	23. $(1110111)_2 = (x)_{16}$	[77]
9. $(110010)_2 = (x)_{16}$	[32]	24. $(110101100)_2 = (x)_{16}$	[1AC]
10. $(101101)_2 = (x)_{16}$	[2D]	25. $(1001000)_2 = (x)_{16}$	[48]
11. $(1101011100)_2 = (x)_{16}$	[35C]	26. $(111000111)_2 = (x)_{16}$	[1C7]
12. $(1111000)_2 = (x)_{16}$	[78]	27. $(110110111)_2 = (x)_{16}$	[1B7]
13. $(1001100110)_2 = (x)_{16}$	[266]	28. $(111111110)_2 = (x)_{16}$	[1FE]
14. $(11001001)_2 = (x)_{16}$	[C9]	29. $(10111000)_2 = (x)_{16}$	[B8]
15. $(100111111)_2 = (x)_{16}$	[13F]	30. $(1000110110)_2 = (x)_{16}$	[236]

6. Esercizi di conversione da base decimale a base binaria

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

1. $(280)_{10} = (x)_2$	[100011000]	16. $(192)_{10} = (x)_2$	[11000000]
2. $(341)_{10} = (x)_2$	[101010101]	17. $(950)_{10} = (x)_2$	[1110110110]
3. $(477)_{10} = (x)_2$	[111011101]	18. $(908)_{10} = (x)_2$	[1110001100]
4. $(491)_{10} = (x)_2$	[111101011]	19. $(98)_{10} = (x)_2$	[1100010]
5. $(421)_{10} = (x)_2$	[110100101]	20. $(153)_{10} = (x)_2$	[10011001]
6. $(788)_{10} = (x)_2$	[1100010100]	21. $(983)_{10} = (x)_2$	[1111010111]
7. $(249)_{10} = (x)_2$	[11111001]	22. $(39)_{10} = (x)_2$	[100111]
8. $(487)_{10} = (x)_2$	[111100111]	23. $(802)_{10} = (x)_2$	[1100100010]
9. $(438)_{10} = (x)_2$	[110110110]	24. $(214)_{10} = (x)_2$	[11010110]
10. $(19)_{10} = (x)_2$	[10011]	25. $(690)_{10} = (x)_2$	[1010110010]
11. $(82)_{10} = (x)_2$	[1010010]	26. $(749)_{10} = (x)_2$	[1011101101]
12. $(814)_{10} = (x)_2$	[1100101110]	27. $(844)_{10} = (x)_2$	[1101001100]
13. $(365)_{10} = (x)_2$	[101101101]	28. $(801)_{10} = (x)_2$	[1100100001]
14. $(298)_{10} = (x)_2$	[100101010]	29. $(913)_{10} = (x)_2$	[1110010001]
15. $(713)_{10} = (x)_2$	[1011001001]	30. $(677)_{10} = (x)_2$	[1010100101]

7. Esercizi di conversione da base ottale a base binaria

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

1. $(1232)_8 = (x)_2$	[1010011010]	11. $(466)_8 = (x)_2$	[100110110]
2. $(722)_8 = (x)_2$	[111010010]	12. $(753)_8 = (x)_2$	[111101011]
3. $(1040)_8 = (x)_2$	[1000100000]	13. $(1212)_8 = (x)_2$	[1010001010]
4. $(215)_8 = (x)_2$	[10001101]	14. $(212)_8 = (x)_2$	[10001010]
5. $(1672)_8 = (x)_2$	[1110111010]	15. $(1504)_8 = (x)_2$	[1101000100]
6. $(1405)_8 = (x)_2$	[1100000101]	16. $(1013)_8 = (x)_2$	[1000001011]
7. $(250)_8 = (x)_2$	[10101000]	17. $(1414)_8 = (x)_2$	[1100001100]
8. $(1611)_8 = (x)_2$	[1110001001]	18. $(754)_8 = (x)_2$	[111101100]
9. $(325)_8 = (x)_2$	[11010101]	19. $(1251)_8 = (x)_2$	[1010101001]
10. $(31)_8 = (x)_2$	[11001]		

20. $(1310)_8 = (x)_2$	[1011001000]	26. $(761)_8 = (x)_2$	[111110001]
21. $(1360)_8 = (x)_2$	[1011110000]	27. $(325)_8 = (x)_2$	[11010101]
22. $(337)_8 = (x)_2$	[11011111]	28. $(1515)_8 = (x)_2$	[1101001101]
23. $(1353)_8 = (x)_2$	[1011101011]	29. $(724)_8 = (x)_2$	[111010100]
24. $(1475)_8 = (x)_2$	[1100111101]	30. $(404)_8 = (x)_2$	[100000100]
25. $(562)_8 = (x)_2$	[101110010]		

8. Esercizi di conversione da base esadecimale a base binaria

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

1. $(E4)_{16} = (x)_2$	[11100100]	16. $(397)_{16} = (x)_2$	[1110010111]
2. $(112)_{16} = (x)_2$	[100010010]	17. $(355)_{16} = (x)_2$	[1101010101]
3. $(1E1)_{16} = (x)_2$	[111100001]	18. $(174)_{16} = (x)_2$	[101110100]
4. $(140)_{16} = (x)_2$	[101000000]	19. $(198)_{16} = (x)_2$	[110011000]
5. $(3BD)_{16} = (x)_2$	[1110111101]	20. $(119)_{16} = (x)_2$	[100011001]
6. $(56)_{16} = (x)_2$	[1010110]	21. $(3CE)_{16} = (x)_2$	[1111001110]
7. $(28D)_{16} = (x)_2$	[1010001101]	22. $(329)_{16} = (x)_2$	[1100101001]
8. $(217)_{16} = (x)_2$	[1000010111]	23. $(49)_{16} = (x)_2$	[1001001]
9. $(3E2)_{16} = (x)_2$	[1111100010]	24. $(1D6)_{16} = (x)_2$	[111010110]
10. $(124)_{16} = (x)_2$	[100100100]	25. $(320)_{16} = (x)_2$	[1100100000]
11. $(3E0)_{16} = (x)_2$	[1111100000]	26. $(195)_{16} = (x)_2$	[110010101]
12. $(214)_{16} = (x)_2$	[1000010100]	27. $(13D)_{16} = (x)_2$	[100111101]
13. $(219)_{16} = (x)_2$	[1000011001]	28. $(29E)_{16} = (x)_2$	[1010011110]
14. $(209)_{16} = (x)_2$	[1000001001]	29. $(30)_{16} = (x)_2$	[110000]
15. $(34F)_{16} = (x)_2$	[1101001111]	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. $(477)_{10} = (x)_{16}$	[1DD]	4. $(359)_{10} = (x)_{16}$	[167]
2. $(428)_{10} = (x)_{16}$	[1AC]	5. $(183)_{10} = (x)_{16}$	[B7]
3. $(280)_{10} = (x)_{16}$	[118]	6. $(97)_{10} = (x)_{16}$	[61]

7. $(4)_{10} = (x)_{16}$	[4]	19. $(258)_{10} = (x)_{16}$	[102]
8. $(670)_{10} = (x)_{16}$	[29E]	20. $(119)_{10} = (x)_{16}$	[77]
9. $(393)_{10} = (x)_{16}$	[189]	21. $(859)_{10} = (x)_{16}$	[35B]
10. $(957)_{10} = (x)_{16}$	[3BD]	22. $(340)_{10} = (x)_{16}$	[154]
11. $(612)_{10} = (x)_{16}$	[264]	23. $(863)_{10} = (x)_{16}$	[35F]
12. $(129)_{10} = (x)_{16}$	[81]	24. $(633)_{10} = (x)_{16}$	[279]
13. $(785)_{10} = (x)_{16}$	[311]	25. $(351)_{10} = (x)_{16}$	[15F]
14. $(61)_{10} = (x)_{16}$	[3D]	26. $(723)_{10} = (x)_{16}$	[2D3]
15. $(106)_{10} = (x)_{16}$	[6A]	27. $(185)_{10} = (x)_{16}$	[B9]
16. $(914)_{10} = (x)_{16}$	[392]	28. $(820)_{10} = (x)_{16}$	[334]
17. $(140)_{10} = (x)_{16}$	[8C]	29. $(399)_{10} = (x)_{16}$	[18F]
18. $(375)_{10} = (x)_{16}$	[177]	30. $(597)_{10} = (x)_{16}$	[255]

10. Esercizi di conversione da base decimale a base ottale

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

1. $(838)_{10} = (x)_8$	[1506]	16. $(60)_{10} = (x)_8$	[74]
2. $(45)_{10} = (x)_8$	[55]	17. $(596)_{10} = (x)_8$	[1124]
3. $(76)_{10} = (x)_8$	[114]	18. $(605)_{10} = (x)_8$	[1135]
4. $(601)_{10} = (x)_8$	[1131]	19. $(791)_{10} = (x)_8$	[1427]
5. $(370)_{10} = (x)_8$	[562]	20. $(287)_{10} = (x)_8$	[437]
6. $(310)_{10} = (x)_8$	[466]	21. $(524)_{10} = (x)_8$	[1014]
7. $(480)_{10} = (x)_8$	[740]	22. $(765)_{10} = (x)_8$	[1375]
8. $(320)_{10} = (x)_8$	[500]	23. $(532)_{10} = (x)_8$	[1024]
9. $(728)_{10} = (x)_8$	[1330]	24. $(175)_{10} = (x)_8$	[257]
10. $(807)_{10} = (x)_8$	[1447]	25. $(7)_{10} = (x)_8$	[7]
11. $(224)_{10} = (x)_8$	[340]	26. $(625)_{10} = (x)_8$	[1161]
12. $(612)_{10} = (x)_8$	[1144]	27. $(77)_{10} = (x)_8$	[115]
13. $(451)_{10} = (x)_8$	[703]	28. $(92)_{10} = (x)_8$	[134]
14. $(589)_{10} = (x)_8$	[1115]	29. $(474)_{10} = (x)_8$	[732]
15. $(33)_{10} = (x)_8$	[41]	30. $(788)_{10} = (x)_8$	[1424]

11. Esercizi di conversione di base

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

- | | | | |
|----------------------------|--------------|---------------------------------|---------|
| 1. $(1220)_8 = (x)_{10}$ | [656] | 16. $(2010)_6 = (x)_{16}$ | [1B6] |
| 2. $(415)_{15} = (x)_8$ | [1630] | 17. $(5)_{14} = (x)_4$ | [11] |
| 3. $(53)_{10} = (x)_4$ | [311] | 18. $(1102)_4 = (x)_{13}$ | [64] |
| 4. $(3A8)_{12} = (x)_2$ | [1000110000] | 19. $(10)_{12} = (x)_3$ | [110] |
| 5. $(2442)_5 = (x)_{10}$ | [372] | 20. $(101101101)_2 = (x)_{14}$ | [1C1] |
| 6. $(221010)_3 = (x)_{12}$ | [486] | 21. $(575)_{13} = (x)_4$ | [32231] |
| 7. $(586)_{12} = (x)_7$ | [2253] | 22. $(488)_{11} = (x)_{15}$ | [28A] |
| 8. $(666)_{11} = (x)_7$ | [2220] | 23. $(14B)_{16} = (x)_{14}$ | [199] |
| 9. $(385)_{15} = (x)_{12}$ | [568] | 24. $(247)_{11} = (x)_{15}$ | [148] |
| 10. $(238)_{13} = (x)_7$ | [1060] | 25. $(58A)_{12} = (x)_{13}$ | [4B7] |
| 11. $(229)_{13} = (x)_3$ | [111211] | 26. $(2602)_7 = (x)_{16}$ | [3D6] |
| 12. $(A0)_{15} = (x)_2$ | [10010110] | 27. $(11111101)_2 = (x)_6$ | [1101] |
| 13. $(1BB)_{14} = (x)_6$ | [1401] | 28. $(3013)_5 = (x)_{11}$ | [319] |
| 14. $(1520)_6 = (x)_{11}$ | [341] | 29. $(1111000010)_2 = (x)_{13}$ | [590] |
| 15. $(45A)_{15} = (x)_3$ | [1100111] | 30. $(602)_{10} = (x)_5$ | [4402] |