



Nombre de la práctica	Conversión de números decimales a binarios			No.	1
Asignatura:	Matemáticas Discretas	Carrera:	Ingeniería sistemas	en	Duración de la práctica (Hrs)
					5

Nombre: Miguel Angel Cruz Vega

Grupo: 3102

I. Competencia(s) específica(s): capacidad de aplicar los conocimientos en la practica

II. Lugar de realización de la práctica (laboratorio, taller, aula u otro): Casa

III. Material empleado:

Hojas, bolígrafo, lápiz, goma, saca puntas

IV. Desarrollo de la práctica:





suma de binarios

Miguel Angel Cruz Vega

Matricula: 202423567

3193 1663 + 4858	11 000 1111 001 11 01 0000001 1001 01 1111 010	7249 +5641 12890	11 000 101 0001 101 100000 1001 1100 1001 011 010	2333 +2321 4654	100 1000 111 01 100 1000 10001 100 1000 101 110
7321 357 + 7878	111 001 001 1101 1000 101101 1111 011 0001 10	6229 +789 11018	11 000 101 0101 100 101 011 0101 10101 10000 1010	4945 3621 + 8566	100 1101 01 0001 111 0001 001 101 1000 101 1101 10
8732 7543 + 6302	1000 1000 1101 01 1111 0100 0101 01 1111 110 001 010	5193 +1365 6558	101 000 100 1001 101 01 0101 01 1100 1100 111 10	4421 3069 + 9490	11 001 000 101 01 101 111 111 1101 100 101 000 100 10
4461 3553 + 8014	1000 101 101 101 1101 111 100001 111 1101 001 1110	2921 +1565 4486	101 101 101 001 110000 111 01 1000 10000 110	7761 6565 + 14326	111 100 101 000 1 1100 1101 001 01 1101 111 111 01 10
7425 3281 + 12706	111 01 0000 0001 101 001 01 000 01 11000 1101 000 10	0185 +533 8718	111 111 111 1001 1000 101 01 1000 10000 1110	4769 +2903 7672	100 101 01 000 01 101 101 01 100 1 1110 111 111 01 0
8941 2169 + 11110	1000 101 110 1101 1000 011 11001 101 01 101 1001 10	4397 +1937 6334	1000 111 111 0101 1101 101 1101 11 000 101 001 0	8301 +977 9278	1000 000 110 1101 111 101 000 1 100 1000 111 110
2481 +439 2960	100 110 111 0001 111 01 1111 101 1100 100 000	2769 +2592 5366	101 01 1101 0001 110 1000 100 101 101 000 111 101 10	3389 +2221 5610	110 100 111 1101 11000 101 01 101 101 101 01 111 101 01 0
3569 +1113 4682	110 111 111 0001 1000 101 100 1 100 1001 001 01 0	7621 +1245 8866	111 01 111 000 101 100 101 01 1101 100 101 01 000 10	6265 +237 6492	11 000 01 111 1001 111 01 1101 101 11 091 01 100 110
8361 873 + 9434	1000 000 101 01001 1101 1101 0101 100 100000 10010	4385 +3577 7962	1000 100 100 10001 110 111 111 11001 111 1100 01 101 0	1953 +1321 5274	111 101 000 01 1101 001 01 001 1100 110 01 01 0
6269 +1345 6614	110000 111 111 01 101 01 11001 1100 111 101 01 10	4701 +1197 5898	111 1100 01 01 01 100 101 01 1101 100 01 01 1000 010	4449 +753 5202	1000 101 1000 01 101 111 100 01 101 000 101 00 10
3469 +1229 4698	110 1100 01 1101 100 1100 1101 01 100 100 101 101 0	6709 +5681 12390	110 100 01 1101 01 101 100 01 1100 01 11000 01 100 110	8045 +2989 13034	111 110 110 1101 101 110 101 01 101 101 01 100 01 101 0
6661 +685 7346	110 1000 000 101 101 01 01 1101 111 001 01 100 10	8737 +6841 15578	1000 100 01 000 01 110 101 01 111 001 111 1100 101 110 10	8409 +6717 15126	1000 000 110 110 01 110 100 01 111 01 111 01 100 01 01 10
8409 +3645 12054	1000 000 110 11001 111 000 111 01 101 111 100 01 01 0	3941 +2977 6858	111 110 110 01 01 101 01 110 01 01 110 101 10 01 01 0	8017 +4265 12282	111 110 101 100 01 100 101 00 111 01 1100 111 110 110
5557 +4053 9610	101 01 110 110 101 111 111 101 01 01 100 101 100 01 01 0	7081 +6229 13310	110 111 01 01 1001 11000 101 01 01 01 110 111 111 111 10	5437 +3121 10558	101 01 100 111 101 110 100 000 000 001 101 001 001 111 10



1853 + 393 2446	11100111101 + 1001010001 100110001110	8189 + 1612 1612	11111111111101 + 11001010001 10011001001110	2193 + 3323 10518	11100000111001 + 110011111101 10100100010110
3833 + 1272 7610	1011011001001 + 11011110001 1110110111010	6013 + 3269 9272	1011101111101 + 110011000101 10010001000010	3125 + 2885 8010	10100000000101 + 1011010000101 1111101001010
1849 + 913 2762	11100111001 + 1110010001 101011001010	2953 + 737 3690	101110001001 + 1011100001 111001101010	3173 + 5353 12526	11100000000101 + 1010011101001 11000011101110
5505 + 2485 7990	1010110000001 + 100110110101 1114100110110	6681 + 5093 11774	1101000011001 + 1001111100101 1011011111110	6353 + 6069 12422	1100011010001 + 10111011010101 11000010000110
3869 + 2341 6210	1111000111101 + 100100100101 1100011000010	7645 + 6341 13986	1110111011101 + 1100011000101 11011010100010	6109 + 1885 6994	1011111011101 + 1101110101 101101010010
7205 + 3849 11054	1110001111111 + 111100001001 10101110001000	4812 + 2045 6862	1001011010001 + 1111111101 110101100110	7429 + 6963 14394	11101000000101 + 11011001010101 11100000111010
4373 + 629 5002	1000100010101 + 1001110010 1001110000111	6741 + 4957 11598	1101001010101 + 1001011111001 1010101000110	4281 + 1697 5978	1000010111001 + 1101010100001 101011010101010
8129 + 21 8150	1111111000001 + 10101 1111111010110	5445 + 325 5770	1010101000101 + 101000101 1011010001010	5341 + 3285 8626	1010011011101 + 110011010101 10000110110010
4543 + 909 5502	1000111110001 + 110001101 101010111110	8485 + 769 9254	10000100100101 + 1100000001 10001000100110	3445 + 1141 4586	110101110101 + 10011110101 1000111101010
7977 + 5525 13502	1111100101001 + 1010110010101 11010010111110	6437 + 423 6862	1100100100101 + 110101001 1101011001110	3221 + 489 3719	110010010101 + 111101001 111001111110
4905 + 1177 6082	1001100101001 + 10010011001 1011111000010	8165 + 1601 9766	1111111100101 + 11001000001 10011000100110	7361 + 6497 13858	1110011000001 + 1100101100001 1110011000001
6089 + 1137 7226	1011111001001 + 10001110001 1110000111010	2325 + 385 2710	100100010101 + 110000001 101010010110	7193 + 81 7274	1110001101010 + 1010001 1110010111011



1743 613 + 100100101 2410 100101101010	16441 1100100101001 5981 + 1011101011101 17422 11000010000110	3389 110100111101 + 901 + 1110000101 4290 1000011000010
6617 1100111011001 3213 + 101000101101 11830 10111000110110	4301 1001001011101 2937 + 101101111001 7638 1110111010110	5805 1011010101101 + 589 + 1001001101 6394 1100011111010
5435 1010101100011 + 2949 + 101110000101 8424 10000011101000	4361 1000100001001 1832 + 11101010101 6238 1100001011110	5333 1010100000001 + 245 + 1011101001 6122 1011111101010
8893 10001011000001 + 3121 + 10000110001 11058 10101100110010	8433 10000011110101 8069 + 1111110000101 16506 1111111111010	8469 10000100010101 4009 + 1111101010001 12478 11000010111110
7997 1111100111101 + 5421 + 1010100101101 13418 11010001101010	7845 1111010100101 + 4285 + 1000010111101 12130 10111101100010	2393 100101011001 + 1569 + 11000100001 3962 111101111010
8345 1000001001001 + 5381 + 1010100000101 13726 10010101001110	7633 1110111010001 5581 + 1010111001101 13214 1100110011110	6421 1100100010101 2937 + 101101111001 9358 10010010001110
2633 101001001101 2377 + 100101001001 5014 101110010110	8072 111110001101 2133 + 100001010101 10210 1101111100010	2681 1111000000001 + 3365 + 110100100101 11046 1010100100110
7865 1111010111001 + 7005 + 110101011101 14870 1101000010110	8629 10000110110101 933 + 1110100101 9562 1001010101010	6385 1100011110001 5072 + 1001111010101 11462 1011001100010
7333 1110010100101 1909 + 11101110101 9242 1001000001010	4945 1001101010001 3701 + 111001110101 8646 10000111000110	7489 1110101000001 + 6408 + 1100100001001 13898 1101001001010
7357 1110010111101 3409 + 1010100100001 12766 1100011101110	5453 1010101010001 + 4293 + 1000011000101 9750 10011000010110	7369 1110011001001 + 3297 + 110011100001 10666 10100110101010
3045 101111100101 1445 + 10110100101 4490 1000110001010	6895 1101011111111 + 4709 + 100010011001 11304 10110000101000	7393 1110011100001 + 25 + 1000 7418 111001111010
3449 110101111001 2741 + 101010110101 6190 1100000101110	7089 110110110001 3309 + 110011011101 10398 10100010011110	4313 1000101000001 + 329 + 101001001 4842 1001011101010
8949 10001011110101 7325 + 1110010011101 16274 1111110010010	2905 10110101011001 + 2405 + 1000101100101 5310 1111101011110	1569 11000100001 1781 + 1101100101 11001110110
8781 10001001001101 + 1453 + 10110101101 10234 10011111111010	5425 1010100110001 1617 + 11001010001 7042 1101110000010	3821 111011101101 + 161 + 10100001 3982 111110001110



381 1001000101 7942 111100101001 7417 11000100111001
 213 + 11010101 7864 111101011101 6301 1100010011101
 794 1100011010 13846 111101110010 15718 11010110010110
 3409 1010100100001 3325 110011111101 7373 1110011001101
 2445 + 100110001101 1821 + 11100011101 1117 + 10001011101
 7854 111101010110 5146 1010000011010 8490 10000100101010
 6221 1100001001101 809 111110101101 3673 111001011001
 3333 + 110100000101 2303 + 100100000001 805 + 110010010101
 9554 10010101010010 10414 100100000001 4478 100010111110
 7101 1101110111101 7993 1111100111001 113 10001011001
 6541 + 1100100101001 6273 + 1100010000001 445 + 110111101
 13641 110100011100110 14266 1101111011101 1358 11000010110
 7825 1111010010001 5861 1011011100101 8413 10000011011101
 3135 + 110000111111 2781 + 101011011101 3141 + 1010000010101
 10958 1111011010000 8642 10000111000010 13554 11010011110010
 8937 10001011101001 4429 1000101001101 4717 1001001101101
 6949 + 1011110100001 2137 + 100001011001 3925 + 111101010101
 14986 111010100001010 6566 1160110100110 8642 111101010101
 6473 1100101001001 6921 11011000001001 8365 10000010101101
 3085 + 1001111011101 1145 + 10001111001 3769 + 111010111001
 1558 10110100100110 8066 1111110000010 12134 10111101100110
 4617 1001000001001 8333 10000010001101 6405 1110011101101
 + 485 + 111100101 333 + 101001101 2129 + 100001010001
 5102 1001111101110 8666 10000111011010 7534 1001010011110
 4833 1001011100001 3133 1100001111101 4469 1000101110101
 1937 + 11110010001 1692 + 110101000001 3233 + 110010100001
 6770 11010010100010 4830 1001011011110 8702 1111000010110
 1425 10110010001 8165 1111111100101 8309 10001000000101
 + 205 + 11001101 1345 + 101010000001 7857 + 1011001010101
 1638 11001011110 4510 100101000100110 1566 10110100101110
 6765 1101001101101 7205 11110000100101 7573 1110110010101
 3277 + 1010010011101 4073 + 111111101001 6833 + 1101010110001
 12042 10111100001010 11278 101100000001110 4426 11100001000110
 5317 1010011000101 3949 1011100111101 3229 11100000111101
 1757 + 1001010010101 2277 + 10001100101 6189 + 1100000101101
 10064 10011101011010 8226 10000000100010 13418 11010001101010
 6853 1101011000101 6377 1100011010101 4021 111110110101
 5797 + 10110101000101 3029 + 101110101110 3189 + 11000110101
 12650 11000101101010 4406 1001001011110 7210 1110000101010
 1009 111110101001 8833 10001010000001 7845 1111010100101
 2453 + 100110010101 2161 + 1101111111101 2217 + 1000101010101
 6462 1100100111110 15994 11111001111101 10062 10011101001110
 1045 100000010101 4273 1000010110001 8055 1111101110101
 + 309 + 10011010101 1369 + 10101011001 2193 + 1110000011001
 1354 1010100101010 5642 1011000001010 15246 1101110001110
 5861 1011011100101 5185 1010001000001 3541 110111010101
 1869 + 11101001101 141 + 10001101 2177 1100010000001
 2730 1111000110010 5326 1010011001110 5718 1011001010110



8369	100000010110001	5885	1011000110101	5229	1010001101101
3977	100101001	169	10101001	425	10101001
8666	1000011011010	5854	101011011110	5654	101100001010
3917	111101001101	4425	1000101001001	6843	110101101101
5686	111101001001	1233	10011010001	7293	10010101001
7606	1111010010110	3658	101100001010	01286	10010001000110
8849	10001010010001	3077	110110100101	6099	101111010001
15437	1010100111101	4781	10010101101	3989	1111010101
1286	1101111001110	11858	101100101001	10086	1001101100110
6833	1101011000101	2265	100011011001	6905	110101111001
15421	11010100101101	1913	1110111001	722	100001001
1227	11011111110010	4128	1000001010010	7082	1111000000010
8317	10000001111101	7317	1110010010101	5601	101011100001
4741	1001010000101	1337	10101001101	2449	100110010001
15058	1100110000010	0674	1000011100010	8050	111101110010
3249	1011001110101	4163	111110011101	7900	1111011100101
1519	1010010011101	3997	1000001000101	4007	110011000101
10946	1010111000010	8162	1011101111111	12906	11001001101010
6993	1101100111101	1313	11000111001	7609	1111000001001
14263	1000010101010	4965	1001101100101	13925	1011100100101
11238	1010111100010	8278	100001001110	13614	1101010010110
6769	1101001110001	7149	1101111010101	4281	1000010111001
7297	1110100001	177	1100110001	1765	10101110001
9746	1111000010010	7326	11110001110	3346	1010110101010
3637	111000110101	6454	110011001101	8289	1000000100001
601	100101101	7825	101100001001	2945	101011100010
7238	111101100010	9282	1001001010110	11234	101011100010
5937	101100110001	7003	1000000000001	1805	11100001101
609	1000101	4002	1110110101101	425	110101001
6006	101110110110	1102	101010101110	2230	10001011010
4613	1001000000101	7365	1110011000101	7685	1111000000101
5	101	4509	110100100001	1837	11101000001
5018	100100000101	1274	100011100010	954	100010100010
1773	1101110101	3417	110101011001	8413	10000011011101
385	1101011001	297	100011001	1733	11011011001
2360	1100000110	4210	111001110010	10166	1001110110110
4829	100111010014	48365	1000001010101	7797	11011001001
2537	100101101101	503	101001010101	3605	11000010101
7366	100101011000	13570	100100101000010	7402	111001101110
7052	110110010001	6213	1100001000101	8685	1000011101101
5809	1101101110001	4533	1000110110101	7849	111100001001
7866	11001001000010	10746	101011111010	12534	110000111010
2825	101100001001	7089	1101110110001	8773	111111101101
1549	11000001101	1227	110101010001	1509	110010110101
4374	100000010110	9826	1001001100010	14682	1100101011010



121 + 3525 = 3446 $1111001 + 11001111101 = 11010111010$
6429 + 6849 = 13278 $110010011101 + 1101011000001 = 1101110000101$
6041 + 6933 = 12974 $110111011001 + 1101011000001 = 110011011001010$
2043 + 3969 = 8014 $1111111101 + 101101010001 = 1111101001101$
6993 + 6521 = 13514 $1101010001001 + 11010111001 = 1101001110010$
6281 + 8301 = 14582 $1100010001001 + 10000001101101 = 10100111010$
3791 + 3877 = 7668 $11101001101 + 11100100101 = 111011000101$
97 + 237 = 334 $1100001 + 1101101 = 10101110$
1081 + 557 = 2398 $11100110001 + 100101101 = 1001010110$
1093 + 753 = 2646 $11101100101 + 1011110001 = 101001010110$
8013 + 8933 = 16946 $1111101001101 + 100101100101 = 1000010001101$
2821 + 6465 = 9286 $10110000101 + 1100101000001 = 100010010101$
437 + 3981 = 4418 $1101101 + 10110101101 = 110100010010$
5729 + 7281 = 13010 $11011111100101 + 10000101000101 = 11001000001$
5533 + 8517 = 14050 $1010110011101 + 10000101000101 = 11010101011001$
14
1429 + 7385 = 8814 $1011010101 + 110010110101 = 10001001101$
5401 + 1101 = 6502 $10101001001001 + 10001001101 = 110010110010$
2029 + 1961 = 3990 $11111010101 + 1101010101 = 1111001011010$
161 + 4685 = 4846 $1010000 + 1001001001101 = 100101101110$
2145 + 1345 = 3490 $10000110001 + 10101000001 = 110110100010$
7005 + 681 = 7686 $1101101011001 + 101010101 = 111000000010$
6225 + 8237 = 14462 $1100001010001 + 10000000101101 = 11000010110$
5097 + 541 = 5638 $1001111101001 + 100001101 = 1011000101010$
8889 + 1101 = 9990 $10001010111001 + 100100101 = 1001100000110$
7973 + 6181 = 14154 $111100101 + 1100000100101 = 1101101001010$
8177 + 7433 = 15610 $111111110001 + 11010100001001 = 11110011111010$
6845 + 3465 = 10310 $110101011101 + 110110001001 = 10100001000110$
1793 + 4441 = 6234 $11100000001 + 1000101011001 = 1100001011010$
8641 + 2133 = 10774 $10000111000001 + 100001010101 = 10101000001101$
221 + 6613 = 6834 $1101101 + 110011010101 = 1101010110010$



V. Conclusiones: Las sumas de binarios se responden con una simple operación en la cual se le tiene que añadir a un dato otro dato para obtener un resultado.