

binary

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Pertaining to a number system that has just two unique digits. For most purposes, we use the decimal number system, which has ten unique digits, 0 through 9. All other numbers are then formed by combining these ten digits. Computers are based on the binary numbering system, which consists of just two unique numbers, 0 and 1. All operations that are possible in the decimal system (addition, subtraction, multiplication, division) are equally possible in the binary system.

We use the decimal system in everyday life because it seems more natural (we have ten fingers and ten toes). For the computer, the binary system is more natural because of its electrical nature (charged versus uncharged).

In the decimal system, each digit position represents a value of 10 to the position's power. For example, the number 345 means:

3 three 100s (10 to the 2nd power)

plus

4 four 10s (10 to the first power)

plus

5 five 1s (10 to the zeroth power)

In the binary system, each digit position represents a value of 2. For example, the binary number 1011 equals:

1 one 8 (2 to the 3rd power)

plus

0 zero 4s (2 to the 2nd power)

plus

1 one 2 (2 to the first power)

plus

1 one 1 (2 to the zeroth power)

So a binary 1011 equals a decimal 11.

Because computers use the binary number system, powers of 2 play an important role. This is why everything in computers seems to come in 8s (2 to the 3rd power), 64s (2 to the 6th power), 128s (2 to the 7th power), and 256s (2 to the 8th power).

Programmers also use the octal (8 numbers) and hexadecimal (16 numbers) number systems because they map nicely onto the binary system. Each octal digit represents exactly three binary digits, and each hexadecimal digit represents four binary digits.

With all that said lets see if you can crack the code.

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010000110110111101101110011001110111001001100001011001000111
010101101100011000010111010001101001011011110110111001110011
001000010010000000100000010110010110111101110101001000000110
100001100001011101100110010100100000011000110111001001100001
011000110110101101100101011001000010000001110100011010000110
010100100000011000110110111101100100011001010010000100100000
001000000101100101101111011101010010000001100011011000010110
111000100000011101100110100101110011011010010111010000100000
011101000110100001100101001000000110011001101111011011000110
110001101111011101110110100101101110011001110010000001101100
011010010110111001101011001000000111010001101111001000000110
001101110010011001010110000101110100001000000111100101101111
011101010111001000100000011101100110010101110010011110010010
000001101111011101110110111000100000011000110110111101100100
011001010111001100100001000011010000101000001101000010100110
100001110100011101000111000000111010001011110010111101101110
011010010110001101101011011000110110100101110011011010110110
010100101110011000110110111101101101001011110111010001101111
011011110110110001110011001011110110001001101001011011100110
000101110010011110010010111001110000011010000111000000001101
000010100000110100001010010010010010000001110111011000010111
001100100000011100110111010001110101011011010111000001100101
011001000010000001110111011010000110010101101110001000000110
110101111001001000000110011001110010011010010110010101101110
011001000010000001110011011001010110111001110100001000000110
110101100101001000000111010001101000011010010111001100101110
001000000010000001001000011000010111011001100101001000000110
011001110101011011100010000001110111011010010111010001101000
001000000111010001101000011010010111001100100000011011100110
010101100001011101000010000001101100011010010111010001110100
011011000110010100100000011101000110100001101001011011100110
011100101110
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I will post the answer if no one gets it, good luck!

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