
6. De-Expansion

Program Name: Deexpansion.java

Input File: deexpansion.dat

Something went horribly wrong with the encrypted document backup process at work and all files were converted to strings containing 1's and 0's representing what the binary representation of the file was! Your boss needs a program, fast, that can restore all the files. All the original files were in 16 bit Unicode.

Input

A file containing a long string of 1's and 0's whose length is guaranteed to be a multiple of 16.

Output

The original file contents.

Example Input File

```
00101010000000000000101100000000001001011000000000011001110000000000000010000000
000100101100000000001100111000000000000000100000000000001011100000000000001011000
0000001010011000000000000000100000000000111011000000000010011100000000001001011
000000000111001100000000001001011000000000011011000000000100001100000000000011
01100000000000000010000000000011001100000000010010110000000000110110000000001
010011000000000001110100000000001011000000000000010100000000000010110000000000
0001010000000000000111000100000000011101100000000011101100000000000100110000
00000000001000000000000101110000000000001011000000000100101100000000001110110
00000000111001100000000000000010000000000100111100000000011101100000000010101
110000000000000001000000000001001110000000001010011000000000110001100000000011
110110000000000011011100000000010100110000000000100111000000000101001100000000
0001001100000000000000001000000000010010110000000000010111000000000100001000000
0000
```

(The actual input file contains only one line which appears to span many lines in the printed version.)

Example Output to Screen

This is the original file.

Good thing you recovered it!