Test Binary to Hexadecimal Converting

The binary system uses 0 , 1 to represent values and it can represent only Two different values in one binary digit (bit)

But Hexadecimal uses {0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F} so it can represent 16 different value in on digit

to convert a binary number to hexadecimal we can convert every nibble (collection of 4 consecutive bits) alone .

0010 to 2 and 0100 to 4 , 1100 to C , 1111 to F and so on .

you are giving a 32 bit binary number and you have to print it in hexadecimal representing .

Input

32-bit binary number

Output

the hexadecimal representing of the input number (use capital letters for { A,B,C,D,E,F })

Example

Input:

11111111111111111111111111111111

Output:
FFFFFFFF