4. Decryptonomicon

Program Name: decrypt.java **Input File: decrypt.in**

Encryption can be simple, complex, or just plain annoying. Luckily, for this problem, the encryption is very straightforward. Here is the encryption algorithm:

```
For each line of text to encrypt
    For each character of the line to encrypt
        determine the 8-bit binary ASCII value of the character
        flip all the bits in the ASCII value (i.e., 0 becomes 1 and 1 becomes 0)
        convert the bit-flipped ASCII value to a hexadecimal representation
        print the hexadecimal value to standard output followed by a single space
    print a newline character ('\n') to standard output
```

For example, the ASCII value of the character 'A' is 65, which is 0100 0001in binary. Flipping the bits gives you 1011 1110, which is represented as 'be' in hexadecimal.

Not so luckily, you have to write a program to reverse the encryption process.

Input

The first line of the input file will contain a single integer, *n,* indicating the number of lines of encrypted input to decrypt.

Output

For each encrypted input line, output the decrypted line.

Example Input File

```
2
b7 9a 93 93 90 df a8 90 8d 93 9b de
b6 df 90 88 91 df cd df 9c 9e 8b 8c d1
```

Example Output To Screen

```
Hello World!
I own 2 cats.
```