3093 - IP Address

Latin America - Mexico and Central America - 2004/2005

Suppose you are reading byte streams from any device, representing IP addresses. Your task is to convert a 32 characters long sequence of '1s' and '0s' (bits) to a dotted decimal format. A dotted decimal format for an IP address is form by grouping 8 bits at a time and converting the binary representation to decimal representation. Any 8 bits is a valid part of an IP address. To convert binary numbers to decimal numbers remember that both are positional numerical systems, where the first 8 positions of the binary systems are:

2^7	2^6	2^5	2^4	2^3	2^2	2^1	2^0
128	64	32	16	8	4	2	1

Input

The input will have a number N ($1 \leq N \leq 9$) in its first line representing the number of streams to convert. N lines will follow.

Output

The output must have N lines with a doted decimal IP address. A dotted decimal IP address is formed by grouping 8 bit at the time and converting the binary representation to decimal representation.

Sample Input

```
4
00000000000000000000000000000000
00000011100000001111111111111111
11001011100001001110010110000000
01010000000100000000000000000001
```

Sample Output

```
0.0.0.0
3.128.255.255
203.132.229.128
80.16.0.1
```

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