

Strange summation

You are given a sequence of digits, which may be grouped into tuples of four digits each. For each such 4-tuple create two two-digit numbers by taking the first and the third digit as the first number, and the second and the fourth digit as the second number. (See the example below.) The sum of the resulting numbers is used as the ASCII code of the next letter of a secret password. Write a program for passwords decoding.

Input data specification

The first line contains one positive integer t ($1 \leq t < 100$) - the number of test cases. For each test case, the first line contains one positive integer n ($1 \leq n < 10$), while the second line contains $4n$ digits representing the decrypted password.

Output data specification

For each test case print in a separate line the decrypted password.

Example 1

Input:

```
2
5
24746211151814964359
1
2244
```

Output:

```
GREAT
0
```

Example explanation: In the first test case we are given five 4-tuples:

```
2474
6211
1518
1496
4359
```

and calculate following sums:

```
27 + 44 = 71
61 + 21 = 82
11 + 58 = 69
19 + 46 = 65
45 + 39 = 84
```

The results are the ASCII codes of letters G, R, E, A, T respectively.

Scoring

By solving this problem you will score 10 points.