Problem

It's Cheems's Birthday and all his friends want to have a great GPL for him. But Cheems's being so schemy, he locked his room with a secret number and given his friends a Binary string of secret number.

His friends have no knowledge about binary strings. Would you help his friends to convert given Binary String to Decimal and participate in Cheems's GPL.

Binary String is a string with only '0' and '1' as its characters.

Examples : "000101", "10101", "1", "0", "01" are Binary Strings.

   "Ab3024", "123", "1A", "6", "AA" are not Binary Strings

Input Format

- First Line : Integer T that denotes number of test cases (1≤T≤104).
- For each Test Case : Integer N for size of Binary String (1≤N≤60) and Binary String S .

Output Format

- For each Test case, print Single Line integer containing the secret number.

Note: Secret number will always be greater than or equal to 0.

Sample Input	Sample Output
3 4 0001 2 10 4 1010	1 2 10

Time Limit: 1

Memory Limit: 256