Problem ID: multiply
RSA Cryptosystem

Your friends Alice and Bob are very secretive people. Whenever they send a message to each other they encrypt it using the *RSA* algorithm. For the algorithm to work, Alice and Bob must each pick two very large prime numbers p and q and from these two numbers they can follow the RSA procedure to generate their own public-key and private-key.

To send an encrypted message to Alice, Bob would have to take her public-key and encrypt his message with it; the only way to decrypt this message is with the private-key that Alice has. One part of the public-key that Alice releases is the cryptographic modulus: $n = p * q$. Alice and Bob have decided to enlist your efforts to help them compute this cryptographic modulus.

Alice and Bob will provide two numbers, p and q ($1 \le p,\ q \le 10^{1000}$). Fortunately, they aren't very good at math and don't really know what prime numbers are; instead they will provide you numbers of a very specific form. Both numbers will be a single non-zero digit followed by zeros (it's possible for there to be no zeros following the non-zero digit, but there will always be a non-zero digit that starts).

Input

The input will begin with a line containing a single positive integer t representing the number of modulus values you must compute. Following will be t lines each containing two space-separated integers p and q ($1 \le p,\ q \le 10^{1000}$).

Output

For each test case, print the modulus ($p * q$) on its own line.

Sample Input

Sample Input	Sample Output
4	45
5 9	490000000000
700000 700000	10
10 1	9000000
1000000 9	