Ancient Building

Lili is an explorer. One day, she found an ancient building. In this building, there are many floor. In each floor, she needs to solve the question to go to the next floor. The question is very simple. "What is $2^a * 3^b$?", given a and b. Help her!

Format Input
The input begins with an integer T, indicating the number of test cases. In each test case, there are 2 positive integers a and b.

Format Output
For each test case, output $2^a * 3^b$. Because the answer can be large, you only need to output it in modulo 1,000,000,007.

Constraints
1 <= T <= 100
1 <= a,b <= 1,000,000

Sample Input	Sample Output
2 2 5 100 3	972 362024513

Note
You can use one of these equations to calculate the answer

$$(a+b)\ \%\ k\ ==\ (\ (a\ \%\ k)\ +\ (b\ \%\ k)\ )\ \%\ k$$
$$(a-b)\ \%\ k\ ==\ (\ (a\ \%\ k)\ +\ k\ -\ (b\ \%\ k)\ )\ \%\ k$$
$$(a*b)\ \%\ k\ ==\ (\ (a\ \%\ k)\ *\ (b\ \%\ k)\ )\ \%\ k$$