

SecondProblem

Okram Cipuc is very smart dude that works at REF (some ugly place where he should not in fact be). But because he is the best in what he does, every day he gets job offers from all over the world. He gets n offers but he likes only k . And he asked his student Arudnam on his famous Avaj course, "which of them did I like ?", Arudnam does not know the answer now he has to guess. How many times he will try in the worst case scenario ?

SCORING : Your score is $100 * \text{correctly solved files} / \text{number of files}$. File is correctly solved if you have solved all T tests correctly.

CONSTRAINTS

$0 < N \leq 20, 0 < K \leq 20$

Input

There will be T tests, each test consists of 1 line containing N and K.
First line of the input is T, T lines follow containing N and K in that order.

Output

Number asked in problem statement

Example

Input:

1
5 2

Output:

10