

Compound Interest

Write a program to find the compound interest for given principal amount P , time T(in years), compounds N times in a year at rate R. Calculate [floor](#) of future value of given principal amount.

Input:

First line contains an integer, the number of test cases 'T'. Each test case should contain three values P, T, N, R.

Output:

Print the future value for given principal after calculating Compound Interest.

Note: Print only floor of the future value. For example, if future value is 134.891, then output should be 134.

Constraints:

$1 \leq T \leq 100$

$1 \leq P \leq 1000$

$1 \leq T \leq 20$

$1 \leq N \leq 4$

$1 \leq R \leq 20$

Example:

Input:

1

1000

2

2

10

Output:

1215 //instead of 1215.51