

## The Curious Case Of SoMayGen

SoMayGen is an evil leader of a tribe of monkeys. He often makes them work hard, with no proper remuneration. Inevitably, the monkeys are very angry with him.

SoMayGen fears that the monkeys might revolt against him, so in order to lure them back into working for him, he decides to throw a pizza party.

Being no good at counting, SoMayGen randomly places an order of P pizza's (pizza's are obviously circular in shape). The tribe of SoMayGen has with them K knives, given as a gift from TJ, the saint. But TJ fooled them, the tribe now knows that each knife can be used only once for cutting a pizza.

You are allowed to perform cuts on the pizzas, using the given K knives.

There are N monkeys in the tribe, all of them are hungry. Each monkey can eat as many of slices of pizza, but its hunger is satisfied by atleast one slice irrespective of the shape and size.

The ones which remain hungry may revolt against the evil leader, since SoMayGen has no clue about how many he'll have to fight, he wants your help.

### Input:

First line contains the number of testcases T,

Each test case, has three integers, N, P, K in one line

Number of test cases - T

Number of monkeys - N

Number of pizza's - P

Number of knives - K

### Output:

Minimum number of monkeys SoMayGen has to fight.

**Time Limit** - 2 seconds

### Constraints:

$1 \leq T < 100$

$0 \leq N, P, K < 100000$

### Sample Case

#### Input

1

4 2 2

#### Output

0

### Explanation

There are four monkeys, two pizza's, two knives. The first knife is used to slice the first pizza into two, similarly the second one is used to slice the second pizza into two. We get 4 slices, which satisfies each monkey of the tribe of SoMayGen, hence he has to fight none.

**Composer** - Rishabh Raj