C: Candy

Time Limit: 2 second(s)

Chouchou is part of one of the best schools in Australia. One of the traditions of this school is to hand out candy to the students at the end of the day. But because there are so many students at the school, it can take a really long time for every student to get their candy. Traditionally, the students would line up in alphabetical order in a straight line and the candies would be handed out one-by-one starting at the front of the line and ending at the back. The teachers soon realised that this was very unfair for the people with names late in the alphabet, so they came up with a new strategy.

The students were lined up in a random order and the teachers picked a positive integer k and repeated the following process until every student was given a candy.

- Give every kth person in the line their candy one-by-one starting with the first person in line.

- Remove everyone from the line who received a candy (leaving a smaller line).

For example, if there were 10 people and $k = 3$, then it would take 5 passes to give every student their candy:

1	2	3	4	5	6	7	8	9	10	$\longrightarrow$	2	3	5	6	8	9				
2	3	5	6	8	9					$\longrightarrow$	3	5	8	9						
3	5	8	9							$\longrightarrow$	5	8								
5	8									$\longrightarrow$	8									
8										$\longrightarrow$										

Thus, the order that the students receive their candy in this example is 1, 4, 7, 10, 2, 6, 3, 9, 5, 8. Chouchou knows that he is the pth student in the line; how long will he have to wait to receive his candy?

Input

The input will consist of three integers n $(1 \leq n \leq 10^9)$, k $(1 \leq k \leq 10^4)$ and p $(1 \leq p \leq n)$ denoting the number of children in the class, the integer picked by the teachers and Chouchou's position in the lineup, respectively.

Output

When Chouchou gets his candy, output the number of students (including him) who will have received their candy.

Sample Input and Output

Sample Input	Output for Sample Input
10 3 1	1

Sample Input	Output for Sample Input
10 3 4	2

Sample Input	Output for Sample Input
10 3 9	8

Sample Input	Output for Sample Input
1000000000 1234 11117	810383