Admission Test

Manmohan Bhaiya decided to give 100% scholarships to the needy students by taking an admission test in Coding Blocks. However in order to avoid any losses at the institute, he came up with a solution. Coding Blocks has N students and M discount coupons. A student will get 100% waiver if he gets X discount coupons.

However in order to get more discount coupons in addition to those M , Bhaiya decided that some students who perform badly in the admission tests, need to pay additional amount equivalent to Y discount coupons, i.e. good students earn discount coupons and weak students need to pay coupons to get admission.

Find out the minimum number of students who can not take the 100% scholorship.

Note : Bhaiya will try his best to give 100% discount to maximum students possible.

Input Format

The first line contains 4 integers N M X Y

Output Format

The output should contain a single integer representing the maximum number of students who can not get 100% discount.

Constraints

- $1 \leq N, M, X, Y \leq 10^9$

Example

Input:
```
5 10 2 1
3 10 4 2
```

Output:
```
5

2
```

Explanation

Test Case 1: Since there are 5 students, and 10 available coupons, and each student needs just 2 coupons to get 100% discount, so Bhaiya already has the needed number of coupons, so all 5 students will get 100% waiver on their fees.

Test Case 2: There are 3 students. Bhaiya will give 100% discount to 2 students using the initial number of discounts, i.e. 8 out of 10 will get used. We need atleast 2 more coupons to give discount to the third student. Now if the third student pay additional amount equivalent to Y=2 coupons, we will get a total of 4 coupons in hand, however we can not use them for giving discount as all 3 students have been considered (2 for getting discount and 1 for paying additional amount).