Problem F3301
Complicated Statement

You are given 5 integers a_1, a_2, a_3, a_4, a_5. You are asked to check if none of the following statement is true :

1. At least one of the following statement is false:

   (a) The bitwise AND of a_1 and a_2 is less than or equal to a_5.

   (b) The summation of a_3 and a_4 is more than a_5.

2. All of the following statements are true:

   (a) The bitwise OR of a_3 and a_4 is less than a_1

   (b) The product of a_4 and a_5 is more than or equal to a_1.

Input

The input consist of 5 space separated integer a_1, a_2, a_3, a_4, a_5. Each of them is between 1 and 100 inclusive.

Output

Output "True"(without quote) if none of 2 given statements is true, otherwise output "False"(without quote).

Sample Input 1

```
1 2 3 4 5
```

Sample Output 1

```
True
```

Sample Input 2

```
5 4 3 2 1
```

Sample Output 2

```
False
```

Explanation of Sample Data

For sample 1:

1. The statement "At least one of the following statement is false:" is false because all the following are true.

   (a) This statement is true because bitwise AND of a_1 and a_2 is 0, which is less than $a_5 = 5$.

   (b) This statement is true because summation of a_3 and a_4 is 7, which is more than $a_5 = 5$.

2. The statement "All of the following statements are true:" is false because one of the following is false.

   (a) This statement is false because bitwise OR of a_3 and a_4 is 7, which is more than $a_1 = 1$.

   (b) This statement is true because product of a_4 and a_5 is 20, which is more than or equal to $a_1 = 1$.

Since none of statement 1 and 2 is true, the output should be "True".

For sample 2:

1. The statement "At least one of the following statement is false:" is true because one of the following is false.

   (a) This statement is false because bitwise AND of a_1 and a_2 is 4, which is more than $a_5 = 1$.

   (b) This statement is true because summation of a_3 and a_4 is 5, which is more than $a_5 = 1$.

2. The statement "All of the following statements are true:" is false because one of the following is false.

   (a) This statement is true because bitwise OR of a_3 and a_4 is 3, which is less than $a_1 = 5$.

   (b) This statement is false because product of a_4 and a_5 is 2, which is less than $a_1 = 5$.

Since statement 1 is true, the output should be "False".