

# Distribution

One day Sushmoy and Rony were playing with boxes and balls Shushmoy has  $m$  boxes and Rony gave Sushmoy  $n$  balls

Assume that the width of the box is the same as the diameter of the balls and all the balls are of the same diameter which means if Sushmoy wants to place two balls in the same box then they have to be stacked upon one another

Now each of the boxes of Sushmoy has a specific height

Now Rony gives Sushmoy a task

Rony asks Sushmoy if he can fit all the balls in  $m$  boxes

Help Sushmoy to answer this question

Input:

At first there will be an integer  $t$  denoting the number of test cases

Then there will be  $t$  lines

$1 \leq t \leq 1000$

Each line will have three single space sperated integers  $n, m, h$

Where  $1 \leq (n, m, h) \leq 10^{18}$

Output:

If Sushmoy can full fill Rony's task according to the given input then print "YES" (without the quotes) otherwise print "NO" (without the quotes)

Sample input:

7

9 3 8

5 7 1

6 10 3

9 5 5

9 1 9

40 5 6

50 7 7

Output:

YES

YES

YES

YES

YES

NO

NO