Question **1**

Correct

Marked out of 10.00

In NASA, two researchers, Mathew and John, started their work on a new planet, but while practicing research they faced a mathematical difficulty. In order to save the time, they divided their work.

So scientist Mathew worked on a piece and invented a number computed with the following formula:

A Mathew number is computed as follows using the formula:

H(n) = n(2n-1)

And scientist John invented another number which is built by the following formula which is called John number.

T(n) = n(n+1)/2

Now Mathew and John are jumbled while combining their work. Now help them combine their research work by finding out number in a given range that satisfies both properties.

Using the above formula, the first few Mathew-John numbers are:

1 6 15 28 ...

Input Format

Input consists of 3 integers T1, T2, M separated by space. T1 and T2 are upper and lower limits of the range. The range is inclusive of both T1 and T2. Find M^{th} number in range [T1, T2] which is actually a Mathew-John number.

Constraints

0 < T1 < T2 < 1000000

Output Format

Print M^{th} number from formed sequence between T1 and T2 (inclusive).

For Valid Input,

Print M^{th} number from formed sequence between T1 and T2

Or

No number is present at this index

For Invalid Input, print

Invalid Input

Sample Input / Output

Input

90 150 2

Output

120

Input

20 80 6

Output

No number is present at this index

Input

-5 3 a

Output

Invalid Input

For example:

Input	Result
90 150 2	120
20 80 6	No number is present at this index
-5 3 a	Invalid Input

Answer: (penalty regime: 0 %)

```
k=0
try:
    a=list(map(int,input().split()))
    l=[1,16,15,28]
    l2=[]
    while True:
        k=(l[-1]-l[-2]+4)+l[-1]
        if k>a[1]:
            break
        l.append(k)
    for i in l:
        if i>=a[0] and i<=a[1]:
            l2.append(i)
    if len(l2)>=a[2]:
        print(l2[(a[2])-1])
    else:
        print("No number is present at this index")
except ValueError:
    print("Invalid Input")
```

	Input	Expected	Got	
✔	90 150 2	120	120	✔
✔	20 80 6	No number is present at this index	No number is present at this index	✔
✔	-5 3 a	Invalid Input	Invalid Input	✔

Passed all tests! ✔