# Project Euler \#44: Pentagon numbers 

This problem is a programming version of Problem 44 from projecteuler.net
Pentagonal numbers are generated by the formula, $P_{n}=n(3 n-1) / 2$. The first ten pentagonal numbers are:

$$
1,5,12,22,35,51,70,92,117,145, \cdots
$$

It can be seen that $P_{4}+P_{7}=22+70=92=P_{8}$. Also $P_{7}-P_{5}=70-35=35=P_{5}$ is also pentagonal.

Generalizing for a given $K$ find all $P_{n},(n<N)$ such that $P_{n}-P_{n-K}$ is pentagonal or $P_{n}+P_{n-K}$ is pentagonal.

## Input Format

Input contains two integers $N$ and $K$ separated by space.

## Constraints

$1 \leq K \leq 9999$
$K+1 \leq N \leq 10^{6}$

## Output Format

Print the pentagonal numbers corresponding to the test case in sorted order, each in a new line.
Sample Input

```
10 2
```


## Sample Output

