Project Euler #44: Pentagon numbers

This problem is a programming version of Problem 44 from projecteuler.net

Pentagonal numbers are generated by the formula, $P_n = n(3n-1)/2$. 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

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10 2
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Sample Output

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70
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