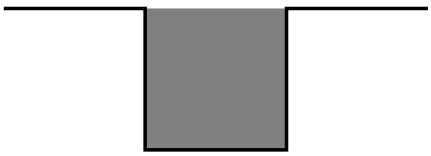
Problem A- Square Divots



The sequence 5, 4, 5 is a *divot*, a three-numbered positive integer sequence where the middle number is exactly one less than the numbers that surround it. It is also a *square divot*, a divot whose product (in this case 100) yields a perfect square (10^2). This square divot is the second smallest of many possible square divots.

Your problem is to find the 200^{th} smallest square divot. Well, not specifically the 200^{th}, but given the number k, to find the k^{th} smallest square divot.

Input Specification:

There will be several test cases, one per line. Each case will be a single integer $k \leq 200000000$; the end of input is signalled by the case $k = 0$.

There will be no more than 1000 test cases.

Output Specification:

You will output the k^{th} square divot, one per line.

Sample Input:

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2
0
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Sample Output:

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5, 4, 5
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