

TSquare TO Square

There are Squares whose digits can be rearranged to make another squares. Lets call them S2S numbers.

for ex.

144->441

Input

Single line containing two integers X Y(Xth,Yth term in the list of S2S numbers).

Output

Print all the numbers from Xth to Yth Term of S2S numbers list(both inclusive).

Example

Input:

1 3

Output:

144

169

196

(Xth,Yth term $\leq 10^{12}$)

(Source Code Limit= 1000B)

Note: 1->100->1 or other similar numbers are NOT S2S numbers(ex 9->900->9)

Updated Time Limit : 30sec

Try the classic version -> <http://www.spoj.com/problems/SQ2SQ/>