

A. Nearly Lucky Number

time limit per test: 2 seconds
 memory limit per test: 256 megabytes
 input: standard input
 output: standard output

Petya loves lucky numbers. We all know that lucky numbers are the positive integers whose decimal representations contain only the lucky digits **4** and **7**. For example, numbers **47**, **744**, **4** are lucky and **5**, **17**, **467** are not.

Unfortunately, not all numbers are lucky. Petya calls a number *nearly lucky* if the number of lucky digits in it is a lucky number. He wonders whether number n is a nearly lucky number.

Input

The only line contains an integer n ($1 \leq n \leq 10^{18}$).

Please do not use the %lld specifier to read or write 64-bit numbers in C++. It is preferred to use the cin, cout streams or the %I64d specifier.

Output

Print on the single line "YES" if n is a nearly lucky number. Otherwise, print "NO" (without the quotes).

Examples

input
40047
output
NO

input
7747774
output
YES

input
1000000000000000000
output
NO

Note

In the first sample there are 3 lucky digits (first one and last two), so the answer is "NO".

In the second sample there are 7 lucky digits, 7 is lucky number, so the answer is "YES".

In the third sample there are no lucky digits, so the answer is "NO".

→ Attention

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

Codeforces Beta Round #84 (Div. 2 Only)

Finished

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.


Start virtual contest

→ Problem tags

implementation

No tag edit access

→ Contest materials

- Announcement 
- Tutorial 