Problem T. Nearly Lucky Number

Time limit 2000 ms **Mem limit** 262144 kB

<u>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.</u>

Unfortunately, not all numbers are lucky. Petya calls a number $\underline{nearly\ lucky}$ 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 ($1 \le n \le 10^{18}$).

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

Output

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

Sample 1

| Input | Output |
|-------|--------|
| 40047 | NO |

Sample 2

| Input | Output |
|---------|--------|
| 7747774 | YES |

Sample 3

| Input | Output |
|-------------------|--------|
| 10000000000000000 | 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 " \mbox{NO} ".