Three-sorted pairs X90689_en

A pair of integers greater than zero (a, b) is *three-sorted* if a can be divided by three at least as many times as b can be divided by three. For example, pair $(18, 75)$ is three-sorted because 18 can be divided by three twice and 75 just once. Pairs $(6, 21)$ and $(21, 6)$ are also three-sorted. However, pair $(75, 18)$ is not three-sorted.
Given a sequence of pairs of integers greater than zero, write a program that, for each pair, outputs the word `yes` if the pair is three-sorted or `no` otherwise.
To be valid, your program must implement and use the following **RECURSIVE** function:

```
// Pre: a > 0 and b > 0
// Post: returns true when  pair (a, b) is three-sorted
//       returns false otherwise
bool is_three_sorted(int a, int b) {
    ...
}
```

Exam score: 2.60 **Automatic part:** 40.00%

Input

A sequence of pairs of integers greater than zero.

Output

For each pair, a line with the word `yes` if the pair is three-sorted or `no` otherwise.

Sample input

```
18 75
75 18
6 21
21 6
9 27
5 2
```

Sample output

```
yes
no
yes
yes
no
yes
```

Observation

Iterative implementations of `is_three_sorted()` will be **invalidated**. Do not introduce any auxiliar function.

Problem information

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Generation : 2021-05-28 11:57:26