# Task C11. DIVS

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Given two integers $A$ and $B$, such that $2 \cdot A \le B$, find an integer $N$ with $A \le N \le B$ that has the maximum number of positive divisors.

Write the program **divs** that finds the number with maximum number of positive divisors in the range $[A, B]$. If there are multiple such integers, you can find any one of them.

**Note**: It may be helpful to use the non-standard data type `__int128` for 128-bit numbers. You can do all standard mathematical operations and operators that you use with type `long long int`. Only you cannot input and output numbers of that type so that's why you can download a sample program `divs.cpp` from the contestant files in which `__int128` numbers can be directly inputted and outputted.

## Input

The input consists of a single line containing two space-separated integers $A$ and $B$, which define the range of integers.

## Output

Output a single integer – any number with the maximum number of positive divisors in the range $[A, B]$.

## Constraints

- $1 \le A < B \le 2^{120}$;
- $2 \cdot A \le B$;
- In tests worth 20 points: $1 \le A < B \le 2^{10}$;
- In tests worth 50 points: $1 \le A < B \le 2^{20}$;
- In tests worth 60 points: $1 \le A < B \le 2^{30}$;
- In tests worth 70 points: $1 \le A < B \le 2^{40}$;
- In tests worth 80 points: $1 \le A < B \le 2^{60}$;
- In tests worth 95 points: $1 \le A < B \le 2^{80}$;
- In tests worth 100 points: $1 \le A < B \le 2^{120}$.

## Examples

| Input | Output | Explanation of the example |
|-------|--------|----------------------------|
| 5 10 | 6 | Integer $6$ has four positive divisors. There are no integers in range $[5, 10]$ with more positive divisors. There is one more integer with four positive divisors – $8$. |
| 20 71 | 60 | Integer $60$ has $12$ positive divisors. All other integers in the range $[20, 71]$ have less positive divisors. |