Project Euler #73: Counting fractions in a range

This problem is a programming version of Problem 73 from projecteuler.net

Consider the fraction, $\frac{n}{d}$, where n and d are positive integers. If $n < d$ and $GCD(n,d)=1$, it is called a reduced proper fraction.

If we list the set of reduced proper fractions for $d \le 8$ in ascending order of size, we get:

$$\frac{1}{8}, \frac{1}{7}, \frac{1}{6}, \frac{1}{5}, \frac{1}{4}, \frac{2}{7}, \frac{1}{3}, \frac{\textbf{3}}{\textbf{8}}, \frac{\textbf{2}}{\textbf{5}}, \frac{\textbf{3}}{\textbf{7}}, \frac{1}{2}, \frac{4}{7}, \frac{3}{5}, \frac{5}{8}, \frac{2}{3}, \frac{5}{7}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{6}{7}, \frac{7}{8}$$

It can be seen that there are 3 fractions between 1/3 and 1/2.

How many fractions lie between ${\frac 1 {A+1}}$ and ${\frac 1 {A}}$ in the sorted set of reduced proper fractions with denominator less than or equal to D?

Constraints
$1 < D < 2 \times 10^6$
$1 < A \leq 100$

Input Format

The only line of input contains A and D.

Output Format

Output required number of fractions.

Sample Input

```
2 8
```

Sample Output

```
3
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