Calculate It

Little Tom loves to solve interesting math challenges. One day he bumped onto an interesting function called *hRank*.
Given a positive integer **k**, *hRank* maps a non-negative integer **x** to another integer.

```
hRank(x) = 1 if 0 <= x < k
hRank(x) = hRank(x – k) + hRank(x / k) if x >= k and k | x  (i.e., x modulo k = 0)
hRank(x) = hRank(x – 1) otherwise.
```

Because x and hRank(x) may be very large, Tom comes to you for help. Given k and x, can you calculate hRank(x)?

Input Format
The input contains only one line with 2 space separated integers, k and x.

Output Format
For each test case output the result in a single line.

Constraints
2 <= k <= 10
1 <= x <= k^{50}

Sample Input #00

```
2 1
```

Sample Output #00

```
1
```

Sample Input #01

```
3 9
```

Sample Output #01

```
5
```

Explanation

For the first sample input, when k = 2 and x = 1, the answer is 1 since hRank(x) = 1 as 1 < 2
For the second sample input, when k = 3 and x = 9, we have

```
hRank(9) = hRank(9-3) + hRank(9/3)  = hRank(6) + hRank(3) as 9 > 3 and 9 modulo 3 = 0.
hRank(6) = hRank(6-3) + hRank(6/3) = hRank(3) + hRank(2) as 6 > 3 and 6 modulo 3 = 0.
hRank(3) = hRank(3-3) + hRank(3/3)  = hRank(0) + hRank(1) as 3 >=3 and 3 modulo 3 = 0.
hRank(3) = hRank(0) + hRank(1)
hRank(3) = 1 + 1 = 2
hRank(6) = 2 + 1 = 3
hRank(9) = 3 + 2 = 5
```