14. Funny Numbers

Condition:

Mubashir was playing with some numbers and found some funny numbers. Funny numbers are defined as follows:

- 89 --> $8^1 + 9^2 = 89 * 1$
- 695 --> $6^2 + 9^3 + 5^4 = 1390 = 695 * 2$
- 46288 --> $4^3 + 6^4 + 2^5 + 8^6 + 8^7 = 2360688 = 46288 * 51$

Create a program that accepts a number ` **n** ` and a positive integer ` **p** ` and returns a positive integer ` **k** ` , such that the sum of the digits of ` **n** ` , raised to successive powers of ` **p** ` , is equal to **n * k** .

Put simply, we are looking for whether an integer ` exists **k** ` , for which it is satisfied:

(a ^ p + b ^ (p+1) + c ^(p+2) + d ^ (p+3) + ...) = n * k

The program should return -1 if such k does not exist.

Input:

- Integer ` **n** `: the number for which we are checking if an integer exists
  ` **k** ` , such that the sum of its digits raised to successive powers of ` **p** `, to be equal to **n * k** .
- Positive integer ` **p** `: power to which the digits of the
  the number ` **n** `.

Output:

- Integer ` **k** ` , which satisfies the condition :
  - The sum of the digits of ` **n** ` , raised to successive powers of ` **p** ` , to be equal to **n * k** .
- If such ` **k** ` does not exist, the function should return -1.

Examples:

Input	Output

92 1	-1
695 2	2