Problem B
Bouquet
Time Limit: 1 second
Memory Limit: 512 megabytes

For the Vietnamese Women's Day in the next few days, Phuoc wish to buy a bouquet for his mother. He knows she holds a special affection for a lucky number, which has a value of n.

Upon visiting a flower stall, he orders a bouquet of exactly k flowers. A bouquet is constructed by combining different flowers in a particular sequence. There are precisely 10 varieties of flowers, each numbered from 0 to 9, and the availability of each type is deemed infinite. The product of the numbers on the selected flowers must match the lucky number n, which his mother cherishes.

The price of the bouquet is determined by the sequence in which Phuoc chooses to combine the flowers. For instance, selecting a type 8 flower followed by a type 3 flower results in a cost of 83. In contrast, choosing a type 3 flower and then a type 8 flower would make the price 38. When he chooses a type 4 flower followed by a type 6 flower, he will have a bouquet with the same lucky number $n = 24$, but the price will be 46.

Given his student budget, Phuoc aims to assemble a bouquet of k flowers at the lowest possible cost and the bouquet must match his mother's lucky number n.

Input

The input contains a single line of two integers n and k ($1 \leq n \leq 10^9; 1 \leq k \leq 10^4$).

Output

The price of the bouquet. If there is no bouquet that satisfies the conditions, output -1.

Sample Input	Sample Output
12 2	26
34 2	-1