Raya had one dragon named Drogo. Suppose, Drogo starts flying in a 2-dimentional space from point 0. The destination point of Drogo is x(on the positive side of the x-axis).Drogo can fly any integer distance that is not divisible by k. Now calculate what's the minimum number of moves drogo needs to reach point x.

Input: The first line contains 2 integers x and k(2>=k>=100); where x is the destination point and the distance d-Drogo flies in one unit of time can't be divisible by k.

Output: In the first line of output print the minimum numbers of moves n, Drogo needs to reach x. In the next line print n integers, each of them not divisible by k. If there are multiple answers print any of them.

Sample Input 1 : 10 2

Sample Output 1 : 2

7 3

Sample Input 2 : 10 3

Sample Output 2 : 1

10