Special Triangles

Input file:	`standard input`
Output file:	`standard output`
Time limit:	0.5 seconds
Memory limit:	32 megabytes

Find three *special* points in the two dimensional Cartesian plane, no two sharing an x-coordinate or a y-coordinate, such that the area of the triangle formed by them is a given rational number a/b; where $a, b \in \mathbb{Z}$.

A point (x, y) is called special if $0 \leq x, y \leq 4 \times 10^9$ and both x, y are integers.

Input

In a single line you are given two integers a and b satisfying $1 \leq a, b \leq 10^9$.

Output

If an answer does not exist, print -1 in a single line. If an answer exists, print 1 in the first line, and in the second line, print 6 space separated integers $x_1, y_1, x_2, y_2, x_3, y_3$, where (x_i, y_i) are the coordinates of ith point of the triangle.

Examples

standard input	standard output
3 8	-1
3 2	1 0 6 2 3 3 0