A. Parallelepiped

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

You've got a rectangular parallelepiped with integer edge lengths. You know the areas of its three faces that have a common vertex. Your task is to find the sum of lengths of all 12 edges of this parallelepiped.

Input

The first and the single line contains three space-separated integers — the areas of the parallelepiped's faces. The area's values are positive (> 0) and do not exceed 10^4. It is guaranteed that there exists at least one parallelepiped that satisfies the problem statement.

Output

Print a single number — the sum of all edges of the parallelepiped.

Examples

input
1 1 1
output
12

input
4 6 6
output
28

Note

In the first sample the parallelepiped has sizes $1 \times 1 \times 1$, in the second one — $2 \times 2 \times 3$.