

Chess

SEASON 8 – SECOND ROUND



The ant Ranycom is in a room with the shape of a parallelepiped. The edges of the room are parallel to the coordinate axes. It has a size of A by B by C , where all three are whole numbers. Ranycom is located at the bottom, left, front corner of the room, which has coordinates $(0,0,0)$, and wants to go to the opposite corner – the one with coordinates (A, B, C) .

However, Ranycom is just a simple ant (a worker at that, not some winged princess) and has no wings. That's why she can't fly and can only walk on the walls, floor and ceiling of the room.

Help Ranycom by writing a program, which tells her the square of the length of the shortest path, which she can walk, between these two corners.

Input

From the first line of the file `ant.in` the three numbers are inputted – A , B and C .

Output

In the output file `ant.out` print a single number – the square of the length of the shortest path.

Constraints

$$1 \leq A, B, C \leq 10000$$

Time limit: 0.2 sec

Memory limit: 256 MB

Sample test

Input (<code>ant.in</code>)	Output (<code>ant.out</code>)
2 2 2	20

Explanation of the sample test

Ranycom can take three equally long paths. One of them is to first walk to $(1,2,0)$ and then from there to $(2,2,2)$.