Problem C. Stone Game

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

MianKing has n piles of stones and each pile has at most 3 stones, now he wants to merge all of these stones into one pile.

In order to achieve his goal, each time MianKing can choose two piles of stones and merge them into a new pile, and the number of stones in the new pile is the sum of these two piles.

Because it takes manpower to move stones, in each operation if the numbers of these two piles of stones are x and y respectively, MianKing should pay $(x \ mod \ 3)(y \ mod \ 3)$ coins for it.

Now MianKing wants to know the minimum amount of coins he need to pay to merge all of these stones into one pile.

Input

The first line has 3 integers a_1, a_2, a_3. And a_i denotes the number of piles which have i stones.

$0 \le a_i \le 10^9$

$\sum_{i=1}^{3} a_i > 0$

Output

Output one integer: the minimum amount of coins MianKing need to pay for his goal.

Examples

standard input	standard output
1 1 1	2
99 66 55	165