Problem G: Sum of Cubes

Filename: `cubes`
Timelimit: `1 second`

The famous Indian mathematician Ramanujan is noted for saying that every number is special. When asked why 1729 (the number of the cab approaching) was special, Ramanujan is reported as saying, “it’s the smallest number that can be expressed as the sum of two cubes in two different ways.” Indeed $1729 = 1^3 + 12^3 = 9^3 + 10^3$. Help Ramanujan with this problem in general. For a given input integer, n, determine the number of different ordered pairs of positive integers (a, b) such that $n = a^3 + b^3$, with $a \leq b$.

Input

The input consists of a single positive integer **n** ($1 \leq n \leq 10^{18}$), the input value for that case.

Output

Output a single line containing the number of ordered pairs of positive integers (a, b) such that $n = a^3 + b^3$, with $a \leq b$.

Samples

Input	Output
37	0
1729	2
22168	1