Courtyard
Problem ID: courtyard

Bath's *Christmas market* takes place in the perfectly square courtyard of its eponymous abbey. This year the market runs from the 23rd of November until the 10th of December.

The Christmas market takes place within this courtyard. To prevent intrusion on the day-to-day activities of townsfolk, the courtyard will be strictly walled off with red tape, to separate market from non-market.

How much red tape will you need to fully enclose the market in the courtyard?

Bath abbey courtyard. Photo by Diego Delso

Input

The input consists of a single integer a ($1 \leq a \leq 10^{18}$), the area in square meters of the courtyard.

Output

Output the total length of walling needed for the market, in metres.
The length should be accurate to an absolute or relative error of at most 10^{-6}.

Sample Input 1	Sample Output 1
64	32.0

Sample Input 2	Sample Output 2
1234	140.51334456