# Project Euler \#91: Right triangles with integer coordinates 

This problem is a programming version of Problem 91 from projecteuler.net
The points $P\left(x_{1}, y_{1}\right)$ and $Q\left(x_{2}, y_{2}\right)$ are plotted at integer co-ordinates and are joined to the origin, $O(0,0)$, to form $\triangle O P Q$.


There are exactly fourteen triangles containing a right angle that can be formed when each co-ordinate lies between 0 and 2 inclusive; that is, $0 \leq x_{1}, y_{1}, x_{2}, y_{2} \leq 2$.


Given that $0 \leq x_{1}, y_{1}, x_{2}, y_{2} \leq N$, how many right triangles can be formed?

## Input Format

First and only line contains $N$.

## Constraints

$2 \leq N \leq 2500$

## Output Format

Output the required count.

## Sample Input

## Sample Output

