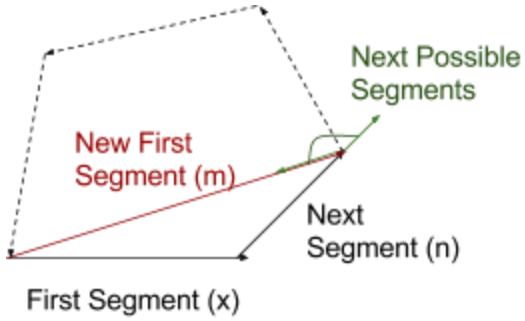
Problem 292

Pythagorean Polygons

Problem Statement:
https://projecteuler.net/problem=292

Algorithm:
Compute $\sum_x P(x, N)$, for all segments x with positive coordinates and integer lengths, such that $2\|x\| \leq N$.

Recursion:
$\mathrm{P(x\,,N)} = \sum_m P(m, N+|m|-|n|-|x|)+I(|m| \in \mathbb{N}^*)*I(|m| \leq N-|n|-|x|)$



Additional checks:

- Keep track of the next possible segments based on θ_n and θ_m
- Make sure that $\mathrm{m}_x \geq 0$ and $\mathrm{m} \neq [0, 0]$