The Problem of the Week #1, Fall 2022
from 82nd Putnam Competition, 2021

The Problem
A grasshopper starts at the origin in the coordinate plane and makes a sequence of hops. Each hop has length 5, and after each hop the grasshopper is at a point whose coordinates are both integers; thus, there are 12 possible locations for the grasshopper after the first hop.
What is the smallest number of hops needed for the grasshopper to reach the point (2021, 2021)?