Problem of the Week
Problem C
Clean Up

Locations on the main floor of a house are described using a coordinate system and coordinate geometry.

Vroom is a robotic vacuum that moves around the main floor of a house. The robot travels from one point to the next point in one straight line. Vroom’s base is located at \((0,0)\). Vroom starts at its base and moves to the following points, in order, before returning to its base: \((1,1)\), \((-1,3)\), \((-3,3)\), \((-3,1)\), \((-2,-2)\). What is the area of the figure that Vroom traced out?