COM S 476/576 Homework 2 Extra Credit

Task: Consider the 2D kinematic chain described in Task 3. Implement

`get_link_indices_containing(v, config, W, L, D)`

that returns the subset of $\{1, \ldots, m\}$ that represent all the indices of the links that contain a given point `v`. Here, `v` is a tuple `(x, y)` whereas `config`, `W`, `L`, and `D` are defined as in the `get_link_positions(config, W, L, D)` in `hw2_chain_plotter.py`. Note that the index of the first link is 1.

Requirement: Do not use any existing library. Instead, for each link, compute the set of half planes whose intersection represents the link. Then, check whether `v` is within all the half planes.