(a) The running time of `detect_collisions` is

$$\Theta(\text{INSERT RUNNING TIME HERE})$$

because INSERT EXPLANATION HERE

(b) EXPLAIN YOUR ALGORITHM

This solution should be submitted in `detection.py`.

(c) The running time of my algorithm is

$$\Theta(\text{INSERT RUNNING TIME HERE})$$

because INSERT EXPLANATION HERE

(d) I detected COLLISIONS collisions and with STEPS simulation steps per second. With the original code, I got STEPS simulation steps per second.