It may not always be the best way , but in our opinion , in order to find the biggest area covered by m balls , we should try to put a ball as large as possible in the box one by one. By doing this , we are able to get m balls witch is as large as it can be , together they form the biggest area.

Now that we know what we should do , we start to write algorithm , some start to set the location of balls and blocks , some write algorithm to set centers of balls , some write algorithm to make sure the ball is big enough, some write algorithm to choose the biggest ball that is created. Finally we assemble these algorithm together and loop for several times ,we get all the balls we need.

However , as you may realize , our algorithm seems not to be quiet “smart” , as a result we had to loop for dozens of times to find a ball not as satisfying as we wanted , so we started to optimize our algorithm . We tried a lot of plans and the plan we use now is to find the first ball in a relatively low accuracy , then we start to find the next ball in a higher accuracy next to the first ball , in this way we can get 100 times accuracy then before with only spending twice as time as before .

userstory

As a ball finder I want to find the ball as big as possible in the box. So that I can gradually get all big balls.

As a ball finder I want to know when the ball reaches its limit that it touches the box , the blocks and other balls . So that I can find out how big the ball can be .

As a ball finder I want to find all kinds of centers of ball mu . So that by lessening balls from each center until it touches somethings, I can find the biggest ball.