

Homework2 shot report

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I did the HW2-1 in the class. It is not difficult to finish.

But the HW2-2 took me a lot of time to find out how to do it. At the first I wanted to draw the lines by using the equations, not just picking two spots into a line. But I didn't know how to do at the class time. And I was afraid that I could not come up the way what I wanted to do. So I did the easy way first. And next I wanted do it in the smarter way. So I planned a process.

Step1 : Use the equations to draw the constraints lines.

Step2 : Fill up the feasible region.

Step3 : Use the objective function to find the optimal solution.

Step4 : Point out the optimal solution point.

Step5 : Make the graph clearer to watch.

I got some problems in the second step. First I must know how to fill up the feasible region. I searched a lot in the Internet, founding the way. But I thought the Python would know the region I wanted to fill up but it did not. After I filled up y_4 to x when $y_4 > y_3$, I wanted to fill up y_4 to x when $y_3 > y_4$. It always filled up the wrong region. Thank God I found the way eventually. I filled up the wrong region with white. And succeed to draw the graph.

The HW2-3 let us do the simultaneous equations to find the shadow price. It seems that the shadow price of one more unit of production resource we continue adding is always same.

This homework let us learn how to use input, visualize and calculate the question. I learned a valuable lesson if you want to achieve your goals you have to know a lot in the background. I'll keep my way on the road of learning.