

Optimization: Maximize Profit in my ice cream shop

I take (x -1) to minimize function in NumPy because NumPy have no maximize function then

I set the maximize equation: $\text{Max } \pi = 2X_1 + 3X_2 - YZ$

X_1 is vanilla ice cream.

X_2 is strawberry ice cream.

Y is the number of giveaway dolls = $X_1 + X_2 \leq 30$

Z is a doll price.

Next, I set constraints equation of fresh milk for ice cream ingredient: $0.5X_1 + 0.2X_2 = 10$

Then I solve 2 equations with linprog function in numpy afterwards, the maximize profit is 150 – YZ

I can suggest that 150 from all fresh milk produce only strawberry ice cream because low ingredient and high price. For mentioned above I product 50 strawberry ice and zero for vanilla ice cream.