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→ I has to decided that food mix should be provided to the people in the diet plan. I am providing for 100 people. Diet instructions are each person must get atleast, (i) one gram of protein, one gram of iron, 3 grams of carbohydrates and the carbohydrate content should exceed 6 grams per person in sometimes.

Food items with availability of protein:

	protein	iron	carbohydrates	price/kg
chicken	10	2	0	30
Fish	2	6	8	50
Bread	2	0	10	20

Answer:- Let 'x' be the quantity in kg's of chicken to be used.

minimize function!

minimize function;  $f(x)$  s.t.

→ For 100 persons, the protein quantity is  $10x + 2y + 2z \geq 100$

→ For 100 persons, the iron quantity is  $100x + 200y + 200z \geq 100$

$$2x + 6y \geq 100$$

→ carbohydrates exceed upto 6gms only  $\Rightarrow 8y + 10z \leq 600$

→ By solving with CVXPY; the optimal value is 1230/-.