Dalaus is a soft drinks company produces 3 juices A, B and C using fresh Mangoes, Passions and Pineapples. The daily supply is limited to 200 tons of mangoes, 90 tons of passions and 150 tons pineapples. The cost per ton of mangoes, passions and pineapples is 210,000, 110,000 and 100,000 UGX respectively. Each ton makes 1500liters of mango juice, 1200 liters of passion juice and 1000liters of pineapple juice. The drink mixes are in proportions below

Drink	mango	passion	pineapple
A	λ	$1-\lambda$	
B	μ	μ	$1-2\mu$
C		γ	$1-\gamma$

NB $0 \leq \lambda, \gamma(\mu) \leq 1(0.5)$

All drinks are canned in 1 liter bottles and the price per bottle is 1,150, 1,250 and 1,200 for A,B,C respectively. Dalaus wants to maximize profits. The company wants to maximize the profit.

i. Model their problem as an LP problem. The constants should be part of the LP formulated problem

ii. Develop a program in any language of your choice that will solve the LP problem formulated above when provided with the values of λ, γ and μ. The program should give appropriate error messages in case wrong parameters are provided.