Ex.

A refinery produces oil and gas. At least 2 L of gasoline is produced for each liter of heating oil. The refinery can produce up to 9 million liters of heating oil and 6 million liters of gasoline each day. Gasoline is projected to sell for $1.10 per liter. Heating oil is projected to sell for $1.75 per liter. The company needs to determine the daily combination of gas and heating oil that must be produced to maximize revenue.

a) Assign variable and determine restrictions

b) Write inequalities



c) Determine the objective function.

d) Rearrange for calculator

e) Graph

f) Find intersection points using calculator

g) Test points for min and max

Ex. L&G Construction is competing for a contract to build a fence. The fence will be no longer than 50 yards and will consist of narrow boards that are 6 inches wide and wide boards that are 8 inches wide. There must be no fewer than 100 wide boards and no more than 80 narrow boards. The narrow boards cost $3.56 each and the wide boards cost $4.36 each. Determine the maximum and minimum costs for the lumber to build the fence.

a) Assign variable and determine restrictions

b) Write inequalities



c) Determine the objective function.

d) Rearrange for calculator

e) Graph

f) Find intersection points using calculator (or graph)

g) Test points for min and max