

MAX-MIN PROBLEMS LAB

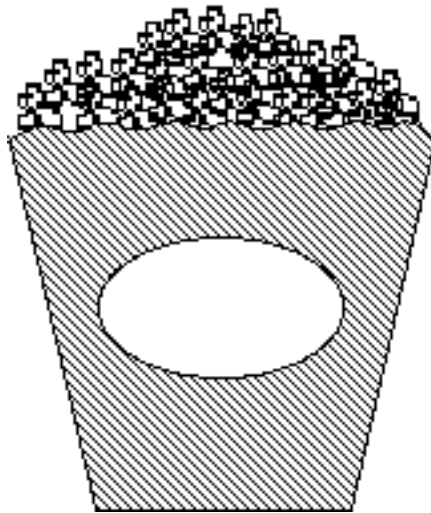
Problem 1.

POPCORN PROBLEM

Your social club on campus has just been informed that their application has been approved and the club will have the franchise to sell popcorn second semester in Mateer Hall for the Friday and Saturday night movies. The club president has assigned you the job of directing the project and she/he wants you to make as much money for the club as possible.

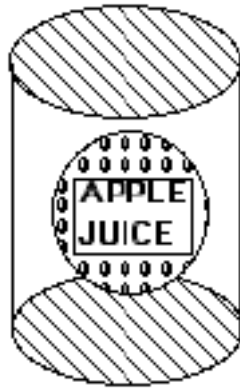
You are to write up a report for the club president estimating the maximum profit the club can expect to make. Be sure to clearly document your estimate.

Note: Your instructor has the pertinent data for this problem.



Problem 2.

TIN CAN PROBLEM



ABSTRACT: A cylindrical tin can is to be made for some apple juice. Determine the dimensions of the can that will be cheapest to make.

PROBLEM: Determine the dimensions of the can of minimal cost meeting the following requirements.

FACTS:

REQUIRED VOLUME - 1 liter (1000 cubic centimeters)

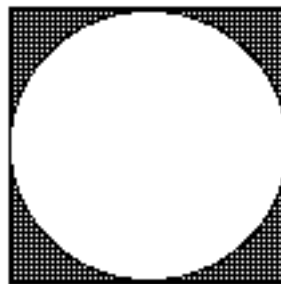
SIDE COST - 1¢ per square centimeter

TOP/BOTTOM COST - 1.5¢ per square centimeter (Waste on Cutout)

LABEL COST - 0.01¢ per square centimeter

SEALING OF TOP AND BOTTOM - 0.5 ¢ per centimeter

SEALING OF SIDE - 0.1¢ per centimeter



↑
waste