

Math 1030 #18d

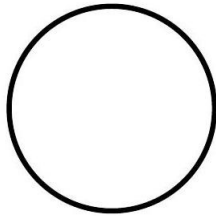
Problem Solving with Geometry

Optimization

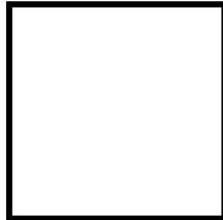
Optimization problems seek "best solutions" to various problems.

Ex 1)

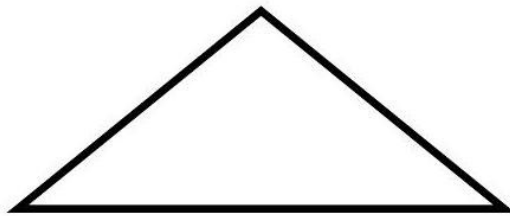
If each of these shapes has a perimeter of 16 ft, put them in order of area from least to greatest.



Circle



Square



Isosceles triangle with sides 5', 5', 6'

EX 2:

You are to design a rectangular box with a volume of 64ft^3 .

a) Draw three sample boxes that fit the requirements.

b) Determine the surface area of each.

c) State the price of each if the materials cost $\$3.00/\text{ft}^2$.