Optimization Review Problem (Involving Cost)

1)

A rectangular storage container with an open top is to have a Volume of 10 m³. The length of its base is twice its length. Material for the base costs $10/ m². Material for the sides cost $6/m². Find the cost of material for the cheapest container. (Hint: Minimize surface area)

2)

The manager of a department store wants to build a 600 square foot rectangular enclosure on the store's parking lot in order to display some equipment. Three sides of the enclosure will be built of redwood fencing, at a cost of $14 per running foot. The forth side will be built of cement blocks, at a cost of $28 per running foot. What dimensions will minimize the total cost of the building materials? What will this minimum cost be?