

Tubular Ride Boogie Board Company  
1000 W Santa Monica Blvd  
Los Angeles, CA 99563

Independent Mathematical Contractors  
00 Anystreet  
Anytown, Anystate 00000

Dear IMC:

I represent the Tubular Ride Boogie Board Company of Santa Monica, California. We are in the process of developing a new boogie board called the Gladiator. This board is produced by our manufacturing plants in Tucson, Arizona and Toronto, Canada. We would like you to coordinate the distribution of these boards from the manufacturing plants to our distributing outlets in Honolulu and Venice Beach.

To solve this problem, you'll need to know a variety of facts about us. The Tucson plant, when operating at full capacity, can manufacture 620 boards per week, while the Toronto plant, beset by labor disputes, can produce only 410 boards per week. The outlet in Honolulu orders 500 Gladiator boards per week, while Venice Beach outlet orders 530 boards per week.

Transportation costs are as follows: Tucson to Honolulu: \$10 per board; Tucson to Venice Beach: \$5 per board; Toronto to Honolulu: \$20 per board; Toronto to Venice Beach: \$10 per board. Our transportation budget is currently \$5050, but we are contemplating increasing the budget to \$6550. We would like to ship as many Gladiators as possible, but we may not be able to fill back orders.

Given this information, how many Gladiator boards should be shipped from each manufacturing plant to each distributing outlet? Will there be an increase in the number of boards shipped with an increased budget? If so, by how much? Please answer this problem in the form of a technical memo submitted to your instructor.

Ride on,

Jeff Spiccoli  
Vice President of Distribution