

Craft Brew Distributors
1 Amber Road
Pilsner, Arizona 85031

Independent Mathematical Contractors
00 Anystreet
Anytown, Anystate 00000

Dear IMC:

My company views Northern Arizona as ripe for the expansion of our beer distributing operation. Based on a market survey conducted last year, we are currently planning to expand into Northern Arizona. The beers we distribute are lager, amber ale and dark stout. At this point we have not named the beers, but we prefer to use names with a local flavor. Any suggestions you might have would be taken into consideration.

We contract with three local breweries to make the beer with our recipes. The table below describes the daily capacity in cases of each brewery:

Location	Lager	Amber	Stout
Brewery 1	50	40	30
Brewery 2	50 - L	40 - L	30 - L
Brewery 3	50 - L	40 - 2L	30 - L

where L is the number of letters in your middle name.

The market survey indicated that 38% of our customers prefer the lager, 44% prefer the amber, and the rest prefer the stout. We project that we will need at least 150 cases of lager, 140 cases of amber, and 110 cases of stout each week to satisfy demand. It costs \$7900 a day to operate Brewery1, \$6500 a day to operate Brewery 2 and \$6000 a day to operate Brewery 3. How many days each week should we contract with each brewery to produce the required number of cases each week at a minimum cost?

We look forward to your technical memo on this matter. Your memo should follow the format outlined by your instructor and have enough detail so that I may be able to find the answer in the future without your assistance. A scientific expert (your instructor) is available to answer any questions that you might have in the course of your investigations. This expert will not be available to assist on this project over the weekend before it is due.

Sincerely,

Horst Von Behrman
Manager