Solving Systems of Equations

1) Charter-boat fishing for walleyes is popular on Lake Erie. The charges for an eight-hour charter trip are:

Charter Company	Boat Rental	Charge per Person
Wally's	$200	$30
Pike's	$50	$60

Each boat can carry a maximum of ten people in addition to the crew.

   a. Write rules for calculating the cost for charter service by Wally's and Pike's.

   b. Determine which service is more economical for a party of 4 and for a party of 8.

   c . How many people would have to be in the party in order for both rental prices to be the same?

   d. Assuming you want to minimize your cost, under what circumstances would you choose Wally's
       charter service? How would you represent your answer symbolically?

2) You want to develop film and have two options. The prices of the two Labs
are shown to the right.

   a. Write 2 equations that represent the cost of each lab.

   b. Which lab would be cheapest if you developed 20 photos?
       50 photos?

   c. After how many photos will the price be the same at each lab?

   d. Assuming you want to minimize your cost, under what circumstances would you choose The Photo
       Lab? How would you represent your answer symbolically?