Jen and Berry's Ice Creamery

SITUATION: Jen and Berry's Ice Creamery is a popular gathering place for area teenagers and their friends. Jen calculates that the average customer spends $2.15 per visit. Berry estimates that the creamery spends about $155 per day in salaries. The daily share of rent, utilities, advertising, etc. adds another $120.

1. Write a daily profit rule for Jen and Berry's Ice Creamery where P(c) represents daily profit and c represents the number of customers. Explain why your rule fits the situation described above.

    P(c) =

2. At the end of a warm summer day, Jen finds that they have served 385 customers that day.
    - What profit can they expect to make for the day?
    - On what do you base your prediction?

3. On a busy Saturday, Jen and Berry's made $636.50 in profit. Jen realized that they had been so busy that she was unable to accurately count customers. (The "take a number" machine is currently broken, so Jen relies on a running mental tally to keep count for her records.)
    - How might Jen figure out how many customers were served that day?
    - Use your method to find an answer for Jen. Write out the plan step-by-step with explanations so that Jen can understand how you figured the number of customers. She hopes to file away the method for the next time the "take a number" machine is broken.

4. Complete the table below, predicting profit based on daily customer tallies.

Day	No. of Customers	Daily Profit
Sunday	217	
Monday	143	
Tuesday	179	
Wednesday	233	
Thursday	184	
Friday	256	
Saturday	249	
	TOTAL WEEKLY PROFIT	

5. Describe the method you used to complete the table. Include how you used mental math, pencil and paper, calculator, computer, etc. in the process.

6. Every Saturday, Jen spends about two hours doing the books for the store. Jen found that the actual weekly profit for the week listed in Problem 3 was $1095.85.
   - Compare this amount to the Total Weekly Profit you calculated in Problem 4.
   - Write a memo to Jen explaining why your total and hers might be different.

MEMO

TO: Jen
FROM:

Date:

Message: