Restaurant Example

Sanjay Thomas is considering opening a restaurant. He feels he needs to make at least $5000 per month in order to maintain a reasonable lifestyle and pay off his school loans. He needs to estimate how much he is likely to make with the restaurant.

Fixed costs of Rent, Leased Equipment, Utilities, Insurance, Loan Repayment, Advertising/Promotion, Miscellaneous are 3000, 275, 265, 155, 125, 100, 75, respectively.

Meal prices can be {20,18.50, 16.50, 15} with probability (.25, .35, .3, .1) respectively.

Additionally, Sanjay estimates that:

* the restaurant would have seating capacity for 50.
* the number of meals sold per month would be normally distributed with mean 3000 and 1000.
* food costs will likely be $11 per meal.

He guesses that the number of kitchen staff—chef, wait staff, kitchen staff—would probably vary between 5 and 8 with monthly labor costs in the range of $5000 to $7000. The actual cost could be any value in this range with equal probability.

Questions

1. How much profit can Sanjay expect to make from the restaurant per month?
2. How much would monthly profit likely vary based on fluctuations in demand, economic strength and labor costs?
3. What choice should he make?