

Assignment 1: Kristen Cookie Company

Read the following case and answer all following questions. If needed, you may make assumptions to answer certain questions. If so, please state them clearly in your answers.

- “*Kristen's Cookie Co. (A1)*,” Harvard Business Case 686093-PDF-ENG. Published 1986, revised 2006.

Assignment Questions (electronic submission only; you may type or handwrite and then scan, in case of handwritten answers it is your responsibility to ensure readability):

1. Plot the process flow chart for Kristen’s Cookie Company. To begin with, be sure to identify the items (flow units), the resources, and the tasks. Try to translate the questions into the language we have learned so far in the course.
2. What is the raw processing time for each step? Who is operating the steps? What is the capacity of each resource? Which resource(s) is the bottleneck?
3. How long will it take you to fill a rush order of one dozen cookies? How long will it take if the rush order is larger than one dozen cookies?
4. How much of your own and your roommate’s time will it take to fill each order? (Here, we assume every order is one dozen cookie. In class, we discuss the case when one order contains multiple dozens.)
5. How many electric mixers and baking trays will you need?
6. Are there any changes you can make in your production plans that will allow you to make more cookies in less time or at lower cost? For example, is there a bottleneck operation in your production process that you can expand cheaply?

For assignment submission, you only need to solve the above six questions. I highly recommend you read and think about the following three discussion questions. We will discuss them during the third class.

Discussion Questions:

7. How many orders can you fill in a night, assuming you are open four hours each night and all orders are one dozen cookies each?
8. Because your baking trays can hold exactly one dozen cookies, you will produce and sell cookies by the dozen. Should you give any discount for people who order two dozen cookies, three dozen cookies, or more? If so, how much? Will it take you any longer to fill a two-dozen cookie order than a one-dozen cookie order?

9. What is the effect of adding another oven? How much would you be willing to pay to rent an additional oven? (Hint: Consider the cases where all orders are either one-dozen, two-dozen, or three-dozen)