

Kristen s cookie company case study

Business



For example, first dozen of cookies take 26 minutes to make, second dozen of cookies take 36 minutes to make and third dozen of cookies take 46 minutes to make.

So we can get 22 dozen of cookies within 240 minutes. And we need 236 minutes to make 22 dozen of cookies. The first step takes Kristin 6 minutes to wash out the electric mixer's bowl and beaters, and another 2 minutes to spoon the cookies. The valuable time of Kristin would be 8 minutes. In second step, roommate takes 1 minute to put cookies into oven.

And also in final step, it takes roommate 2 minutes to pack each dozen and about 1 minute to accept payment.

So the valuable time of roommate is 4 minutes totally. Because all costs of ingredients and boxes for each dozen are the same, total valuable time to make one dozen of cookies is Kristin (8 minutes) plus roommate (4 minutes) equals 12 minutes. In a same way, the valuable time to make two dozen of cookies.

The average hourly wage is \$ 7.5, so we can assume our opportunity cost is \$7.

5. As result, we can get the following table.

# of Cookies	Minutes	Cost	Cost per dozen
1 dozen	12	\$1.50	\$1.50
2 dozen	17	\$2.125	\$1.0625
3 dozen	22	\$2.625	\$0.875

As the table shows above, the cost decreases with larger orders. We can offer 10% discount to those who buy two dozens cookies, and 15% to those who buy three dozens or above.

ten electric mixer can mix ingredients for up to three dozens cookies, so we need 3 trays to prepare.

Although the oven only holds one tray per time, it takes 6 minutes to washing and mixing steps. So we still need 3 trays to be well-prepared. The bottleneck operation would be the speed of operation, which is time you spend in preparing and baking. The speed with which you can produce cookies depends on the cycle time of baking. If we can rent another oven, it will increase our efficiency in order to make more cookies with lower cost. Because mixer can mix ingredients for up to three dozens cookies, each oven can hold a tray per time.

This change would give us solution for production constraints. After increasing capacity of oven, it will make us start our new orders every 5 minutes and 7.5 dozens per hour. So we are willing to pay \$200-\$300 to rent an extra oven. If we choose to run business without Kristin, her time for one dozen cookies becomes 12 minutes. It will become the labor bottleneck.

If the order contains two dozens or more, Kristin's time for this order becomes 17 minutes and 22 minutes for 3 dozens. For the delay time, there is no need to offer a rate to rush order.

Because of our constraints, previous order can be finished on time. We can promise delivery within the campus from 10am to 5pm. Because this period of time would be acceptable for part-time student.

We can use message to notify our customers when orders are ready. What we can consider our plan of business on this stage is how to lower our

material cost and labor cost. For the special orders, we can make a small card and write “ special cookies for > COCO (the name of customer) to our customers. This action would increase our customer liability and customer satisfaction.