Old oregon wood store

We explored three different options, given the need to create a division of work that would maximize the number of tables manufactured per day by either utilizing four or five employees and allowing the employees to either be part of the manufacturing process or manufacture tables on their own. We first decided to combine the finishing step with the packaging step since packaging required a very minimal amount of time and because the employee assigned to this function was being severely underutilized , therefore one employee could handle both job duties.

We also decided that Cathy should be excluded from the manufacturing process and George should manufacture tables on his own, since he is the one that can assemble a table using the least amount of time. Using the Assignment method and the different times that it would take each individual to perform each job duty we concluded that it will take 260 minutes to manufacture one table given that assembly was assigned to Tom (60), finishing and packaging was assigned to Leon(90), and preparation was assigned to Randy(110).

By utilizing this approach Tom, Leon, and Randy could manufacture 4. 36 tables in 480 minutes(total time available divided by longest job time), given that they work an eight hour shift, meanwhile George could manufacture 2. 09 tables during the same time period. This would allow the whole team to manufacture a total of 6. 45 tables in an eight hour work day. Our second option involved modifying assignments in the first approach.

For the second approach we decided to assign each job duty to the person that would required the least amount of time for each different job duty,

given that preparation was assigned to Tom, since there was no one else that could do the duty for 100 minutes or less and this was the longest job time from the entire process. We also decided to let George manufacture tables on his own and exclude Cathy from the manufacturing process. This approached equated to a total of 270 hours, given than assembly was assigned to Randy(80), finishing and packaging to Leon(90), and preparation to Tom(100). By utilizing this pproach Tom, Leon, and Randy can manufacture 4. 8 tables in 480 minutes, meanwhile George manufactures 2. 09 tables during the same given time. This approach would allow the entire team to manufacture a total of around 7 tables per day. For the third option we decided to utilize all five of the employees but still keep finishing and packaging as one job duty instead of two. Since it would only take three employees to manufacture a table we decided that George and Tom could be best utilized if they were to manufacture tables on their own because they are both the fastest at manufacturing a table.

After excluding George and Tom from the manufacturing process, we decided to assign preparation to Randy(110), since he's the one that can finish the job the fastest, and because preparation is the job duty that requires the most amount of time. After assigning preparation to Randy, we assigned assembly to Cathy (70), and finishing and packaging to Leon (90). By utilizing this division of work Randy, Cathy, and Leon can make 4. 36 tables in 480 minutes, Tom can make 1. 75 in the same given time, and George can make 2. 09 which would equate to a total number of 8. 2 tables per day.