Honors Finite Math Chapter 2 Group Work Name_____Per._____

YOU MUST WRITE DOWN YOUR ORIGINAL MATRIX, WRITE DOWN YOUR SOLUTION MATRIX, AND ANSWER THE QUESTION!!

1. A company produces three color TV sets: models X, Y, and Z. Each model X set requires 2 hours of electronics work, 2 hours of assembly time, and 1 hour of finishing time. Each model Y requires 1, 3, and 1 hour(s) of electronics, assembly and finishing time, respectively. Each model Z requires 3, 2, and 2 hours of the same work, respectively. There are 100 hours available for electronics, 100 hours available for assembly, and 65 hours available for finishing per week. How many of each model should be produced each week if all available time must be used?

2. A chemistry laboratory has available three kinds of hydrochloric acid (HCL): 10%, 30%, and 50% solutions. How many liters of each should be mixed to obtain 100 liters of 25% HCL? Provide a table showing six of the possible solutions.

3. An auto manufacturer sends cars from two plants, I and II, to dealerships A and B located in a Midwestern city. Plant I has a total of 28 cars to send, and plant II has 8. Dealer A needs 20 cars, and dealer B needs 16. Transportation costs per car, based on the distance of each dealership from each plant, are $220 from I to A, $300 from I to B, $400 from II to A, $180 from II to B. The manufacturer wants to limit transportation costs to $10,640. How many cars should be sent from each plant to each of the two dealerships? (Assign variables to the 4 unknowns. Write a system of 5 equations with the 4 variables. Not all equations will involve all 4 variables)

4. ***Supply and Demand*** For a certain commodity, the demand equation is given by $D = -3p + 20$. At a price of $1, four units of the commodity are supplied. If the supply equation is linear and the market price is $4, find the supply equation.

DON'T FORGET THE REVIEW ASSIGNMENT IN THE BOOK:
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