

6. The Pinewood Furniture Company produces chairs and tables from two resources—labor and wood. The company has 80 hours of labor and 36 pounds of wood available each day. Demand for chairs is limited to 6 per day. Each chair requires 8 hours of labor and 2 pounds of wood, whereas a table requires 10 hours of labor and 6 pounds of wood. The profit derived from each chair is \$400 and from each table, \$100. The company wants to determine the number of chairs and tables to produce each day in order to maximize profit.
- Formulate a linear programming model for this problem.
 - Solve this model by using graphical analysis.