

## Linear Programming Summary

### Know The Following Definitions

- Linear Programming problem
- Constraints
- Profit equation
- Feasible region
- Corner points

### Be Able To

- From its associated chart, write the constraints of a linear programming problem as linear inequalities
- List two implied constraints in every linear programming problem
- Formulate a profit equation for a linear programming problem when given the per-units profits
- Draw the graph of a line in a coordinate-axis system
- Graph a linear inequality in a coordinate-axis system
- Determine by a substitution process whether a point with given coordinates is contained in the graph of a linear inequality
- Indicate the feasible region for a linear programming problem by shading the graphical intersection of its constraints
- Locate the corner points of a feasible region from its graph
- Evaluate the profit function at each corner point of a feasible region
- Apply the corner point theorem to determine the maximum profit for a linear programming problem
- Interpret the corner point producing the profit maximum as the solution to the corresponding linear programming problem