

QUIZ**SHOW ALL WORK AND JUSTIFY ALL ANSWERS.**

A diet is to contain at least 2400 units of vitamins, 1800 units of minerals, and 1200 calories. Two foods, Food A and Food B are to be purchased. Each unit of Food A provides 50 units of vitamins, 30 units of minerals, and 10 calories. Each unit of Food B provides 20 units of vitamins, 20 units of minerals, and 40 calories. Food A costs \$2 per unit and Food B cost \$1 per unit. How many units of each food should be purchased to keep costs at a minimum?

1. Define variables, set up the system of inequalities (with Objective Fcn and constraints)
2. Find the feasible region S graphically and label all lines
3. Find all corner points
4. Solve with Method of Corners