

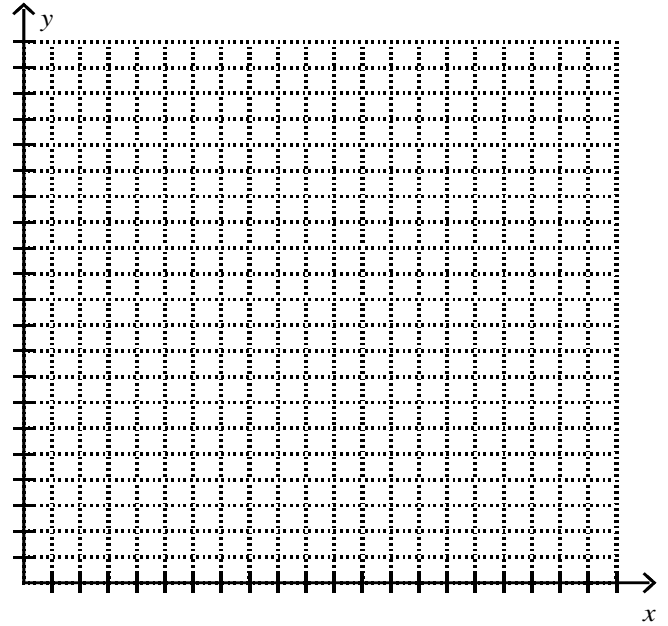
Linear Programming Word Problems

Name: _____

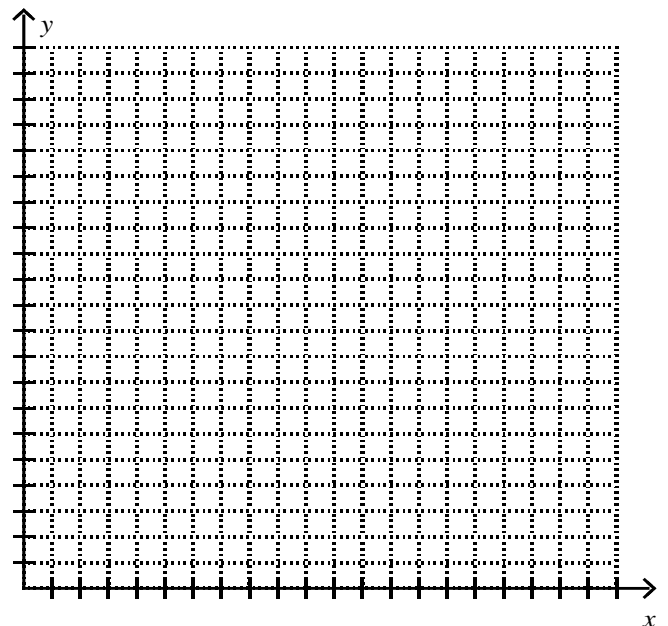
Period: _____

Solve each problem. Label and show all the steps to each problem.

1. It takes 2 hours of cutting and 4 hours of sewing to make a jacket. To make a coat it takes 4 hours of cutting and 2 hours of sewing. At most 20 hours per day are available for cutting and at most 16 hours per day are available for sewing. The profit on a jacket is \$34 and on a coat is \$31. How many of each should this company make to maximize the profit? What is the maximum profit?



2. A snack bar cooks and sells hamburgers and hot dogs during football games. To stay in business, the snack bar must sell at least 100 hamburgers, but cannot cook more than 500 hamburgers. It must sell at least 200 hot dogs, but cannot cook more than 700 hot dogs. They can cook at most 900 hamburgers and hot dogs together during the game. The profit on a hamburger is \$0.33 and the profit on a hot dog of \$0.21. How many of each item should the snack bar sell to make the maximum profit and what is the maximum profit?



3. A company produces a jar consisting of a mixture of sunflower seeds and raisins with at most 13 ounces and at least 10 ounces of sunflower seeds and raisins. The jar cannot have less than 5 ounces of raisins and cannot have less than 4 ounces of sunflower seeds. Each ounce of raisins costs \$0.07 to package, while each ounce of sunflower seeds costs \$0.10 to package. Find the number of ounces of seeds and raisins to put into the mixture in order to minimize cost? What is the cost?

