## Systems of Ineqalities: Word Problems

Name:
Directions: Solve each word problem by following the steps. Show all work.

1. In order to prepare for your Halloween bash, you will go to the supermarket to buy hamburgers and chicken. Hamburgers cost \$3 per pound and chicken costs $\$ 2.50$ per pound. You have no more than $\$ 30$ to spend. You expect to purchase at least 3 pounds of hamburgers.
2. Jenny is selling rings and earrings at an arts and crafts show. She would like to make at least $\$ 800$ in sales. She has 150 pieces of jewelry. Rings are priced at $\$ 5$ and earrings are priced at $\$ 10$ a pair (as one piece of jewelry). How much of each does she need to sell to make at least $\$ 800$ ?

3. Rosalind is an actress at a local dinner theatre and is paid $\$ 125$ per day to rehearse the play and $\$ 250$ per day to perform in front of an audience. A season as an actress lasts 120 days. The director will have at least 30 rehearsal days. This season she would like to earn at least $\$ 21,000$. How many days does Rosalind need to rehearse and perform?
4. Joe works for a publishing company packing boxes to send to bookstores around America. One day, he's packing paperbacks and hardback books of the same title. Each box can hold up to 48 books. Each paperback weighs 0.7 pounds and each hardback weighs 1.5 pounds. However, the total weight of the box can't be more than 50 pounds. What is one way that Joe can pack the boxes?


5. Ruth is at a bookstore buying at most 8 books to read over the summer. Each hardcover costs $\$ 15$ and each paperback book costs $\$ 10$. She doesn't want to spend more than $\$ 100$. How many each book can she buy?

6. Rob and Loretta are driving to on vacation. They plan on driving no more than 60 hours total. Loretta doesn't want to drive more than 20 hours. How many hours can Rob and Loretta drive?

