

Name _____ Due Date _____ Period _____

7.2 SYSTEM of INEQUALITIES WORD PROBLEMS

Directions: For each of the following systems please write the system of inequalities. YOU DO NOT NEED TO SOLVE!

1. Anna can work at most 20 hours next week. She need to earn at least \$92 to cover her weekly expenses. Her dog- walking job pays \$7.50 per hour and her job as a car wash attendant pays \$6 per hour. Write a system of linear inequalities to model the situation.
2. Jaden is buying plants and soil for her garden. The soil cost \$4 per bag, and the plants cost \$10 each. She wants to buy at least 5 plants and can spend no more than \$100. Write a system of linear inequalities to model the situation.
3. Porter is going to the store to buy candles. Small candles cost \$3.50 and large candles cost \$5.00. He needs to buy at least 20 candles, and he cannot spend more than \$80. Write a system of linear inequalities that represent the situation.
4. Chase is packing books into boxes. Each box can hold either 15 small books or 8 large books. He needs to pack at least 35 boxes and at least 350 books. Write a system of linear inequalities to represent the situation.
5. During a family trip, you share the driving with your dad. At most, you are allowed to drive for three hours. While driving, your maximum speed is 55 miles per hour.
 - a) Write a system of inequalities describing the possible numbers of hours (t) and distance d you may have to drive.
 - b) Is it possible for you to have driven 160 miles?