

Lesson 7 Assignment Systems of Inequalities Word Problems

Period _____

Define your variables, set up the system of inequalities, and graph to show all possible solutions.

- 1) A clothing store sells pants and skirts. The store can buy at most 500 pants and skirts. The store wants to buy more skirts than pants. The store wants to buy at least 100 pants each month.
- 2) Josh has two summer jobs, mowing lawns which pays \$14 per hour and bagging groceries which pays \$8 per hour. Josh can work no more than 25 hours each week and he needs to earn at least \$100 per week. How many hours can Josh work at each job?
- 3) Jason received a \$100 gift card to Target. Target sells T-shirts for \$10 and shorts for \$15. Jason wants to spend no more than the amount on the gift card. He wants to buy at least 3 things. Find the different possible combinations of shirts and shorts Jason can buy.
- 4) Peanuts cost \$3 a pound and cashews cost \$5 per pound. Andrea has \$45 to spend and she needs at least 6 pounds. Find the possible solutions.
- 5) Lacy wants to buy jewelry for at least 5 friends while she is in Italy. Small earrings cost \$8 and large earrings cost \$10. Lacy wants to spend less than \$50. Find all possible combinations.

Answers to Lesson 7 Assignment Systems of Inequalities Word Problems (ID: 1)

1) $s + p \leq 500$, $s \geq p$, $p \geq 100$

2) $x + y \leq 25$, $14x + 8y \geq 100$

3) $x + y \geq 3$, $10x + 15y \leq 100$

4) $x + y \geq 6$, $3x + 5y \leq 45$

5) $x + y \geq 5$, $8x + 10y \leq 50$