$\qquad$ Score $\qquad$ Period $\qquad$

## Unit 6 Review Systems Story Problems

For each of the following a) label your variables b) write both equations $c$ ) solve the equations d) write your answer in a complete sentence.

1) Logan is buying supplies for the JPJ school dance. A bag of balloons is $\$ 6.25$ per package and a package of streamers is $\$ 5.75$ each. He spent $\$ 66.75$ and only bought 11 items. How many packages of balloons and how many packages of streamers did Logan buy?
2) Sierra is trying to decide which company to rent a car from. Sertz Kars rents cars for a base fee of $\$ 40$ plus $\$ 2.55$ per mile and Javis Rentals charges a base fee of $\$ 136.00$ plus $\$ 1.35$ per mile. When will the two plans cost the same??
3) 3) Alexia is buying supplies for the Univ. of Utah Homecoming game. A bag of balloons is $\$ 3.55$ per package and a package of streamers is $\$ 7.75$ each. She spent $\$ 128.50$ and only bought 22 items. How many packages of balloons and how many packages of streamers did Alexia buy?

For each of the following a) define your variables b)write out both inequalities.
4) Alexander can work a maximum of 60 hours per week. He needs to make $\$ 590$ in order to cover all of his expenses. His tutoring job pays $\$ 13$ per hour and his lawn mowing job pays $\$ 7$ an hour. Write the system of inequalities to represent the situation.
5) A storage space Zanes attic has 165 square feet of space he wants to place as many boxes in this storage space as possible. The large boxes take up 15 square feet of space and the small boxes take up 7 square feet of space. He can fit at most 14 boxes into the storage space. Write the system of inequalities to represent the situation.
6) Aurora can work a maximum of 40 hours per week. She needs to make $\$ 360$ in order to cover all of her expenses. Her babysitting job pays $\$ 8$ per hour and her cake-making job pays $\$ 10$ an hour. Write the system of inequalities to represent the situation.

