Foundations of Math & Pre-Calculus 10

Lesson 7.1 ~ Developing Systems of Linear Equations

1) The sum of two numbers is 22. Their difference is 2. What are the numbers?

2) The senior classes at High School A and High School B planned separate trips to the water park. The senior class at High School A rented and filled 9 vans and 4 buses with 210 students. High School B rented and filled 13 vans and 5 buses with 280 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.

3) Pranav and Danielle each improved their yards by planting hostas and ornamental grass. They bought their supplies from the same store. Pranav spent $120 on 6 hostas and 6 bunches of ornamental grass. Danielle spent $232 on 12 hostas and 11 bunches of ornamental grass. What is the cost of one hosta and the cost of one bunch of ornamental grass?

4) Traveling downstream a certain boat went 10 mph. Traveling upstream it only went 2 mph. What is the speed of the current? How fast would the boat go if there were no current?

5) Flying to Cheyenne with a tailwind a plane averaged 124.4 km/h. On the return trip the plane only averaged 47.6 km/h while flying back into the same wind. What is the speed of the wind? How fast would the plane go if there were no wind?

6) James and Lisa are selling fruit for a school fundraiser. Customers can buy small boxes of tangerines and large boxes of tangerines. James sold 3 small boxes of tangerines and 8 large boxes of tangerines for a total of $135.14. Lisa sold 6 small boxes of tangerines and 11 large boxes of tangerines for a total of $196.43. Find the cost each of one small box of tangerines and one large box of tangerines.

7) The sum of two numbers is 21.8. Their difference is 4.6. Find the numbers.

8) Jennifer's school is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 14 adult tickets and 13 child tickets for a total of $163.40. The school took in $103.60 on the second day by selling 12 adult tickets and 7 child tickets. What is the price each of one adult ticket and one child ticket?