Section 1-3 Word Problems Extra Practice

1. On their 560-mile trip, the Bruins basketball team spent two more hours on the

interstate highway than they did on the local highways. They averaged 45 mph

on the local highways and 55 mph on the interstate highways. How many hours did

they spend driving the local highways?

2. An airplane leaves Chicago for Cleveland at a speed of 475 mph. Twenty minutes later, a plane going to Chicago leaves Cleveland, which is 350 miles from Chicago, at a speed of 500 mph. When they meet, how far are they from Cleveland?

3. A private airplane leaves Midway airport and flies due east at a speed of 180 km/h. Two hours later, a jet leaves Midway and flies due east at a speed of 900km/h. How far from the airport will the jet overtake the private plane?

4. Wendy, a loan officer at a bank, has $1,000,000 to lend and is required to obtain an average return of 18% per year. If she can lend at the rate of 19% or at the rate of 16%, how much can she lend at 16% rate and still meet her requirement?

5. Assume that you have $12,000 to invest in two funds. The first fund pays 4.5% simple interest and the second 5% simple interest. Your goal is to earn $580 in interest during the course of one year. How much should you invest in the account paying 5% in order to achieve your goal?

6. A dairy farmer has a container of buttermilk which is 10% water and 90% butterfat. A second container is only 2% water. How many liters of each should the farmer add to make 1400 liters of buttermilk that is 6% water?

7. How much pure water should be added to a 12 gallon aquarium which is 10% salt in order to dilute the salt solution to 8%?