

**LESSON**  
**1.5****Challenge Practice***For use with the lesson "Use a Problem Solving Plan"*

1. You and your friend leave school to go to the city library, which is 5 miles away. Your friend leaves when school lets out at 3 P.M., and walks to the library. You have to stay behind for a club meeting, and leave one hour later on your bicycle. You both arrive at the library at the same time. After studying for 2 hours, your friend does an errand, walking to a shop 1 mile away. Your friend walks at the same rate as before and takes 20 minutes to make the walk to the shop. What time is it when your friend arrives at the shop?
2. In Exercise 1, how long did it take you to bicycle from school to the library?
3. In Exercise 1, if you offered to do the errand for your friend on your bicycle, how long would it take you to travel from the library to the shop?
4. You and your friend decide to meet at the city pool to swim. You both leave your houses at 8 A.M. and bicycle to the pool. Pedaling at a rate 5 miles per hour faster than your friend, you arrive at the pool and have to wait 12 minutes for your friend who is pedaling at a rate of 10 miles per hour. Once your friend arrives you both swim for two hours and then return home, pedaling at the same rates you as you did in the morning. You arrive home at 11:48 A.M. What is the distance between your house and the pool?
5. In Exercise 4, what is the distance between your friend's house and the pool?
6. In Exercise 4, suppose that after swimming you both decide to ride your bicycles to your friend's house. If you both were to ride at the same rates as you did in the morning, how long would you have to wait at your friend's house before your friend would arrive?