

CS2984: Introduction to Problem Solving, Fall 2007

In-class Exercise #3

You will work in pairs. On each question, one member of the pair is the solver and the scribe, while the other is the listener. The listener checks to make sure that the solver is thorough and correct. The solver will solve the problem, and write up a detailed listing of the steps involved in the solution process.

These problems are to be done in the order given here. One person will be solver for questions 1, 4, and 5. The other person will be solver for questions 2, 3, and 6.

1. A man runs 1 mile in 10 minutes and a car goes 50 miles an hour. At these rates, how far does the man go when the car goes 150 miles?
2. A car travels 40 miles an hour and a plane travels 10 miles a minute. How far will the car travel while the plane travels 450 miles?
3. Clock A keeps perfect time whereas clock B runs fast. When clock A says 6 minutes have passed, clock B says 8 minutes have passed. How many minutes have really passed when clock B says 56 minutes have passed?
4. A 12-inch ruler is poorly constructed and is really $12 \frac{1}{2}$ inches long. You measure off what you believe is 5 yards of string with this ruler. What is the true length of the string?
5. Boris owns 6 suits, 3 less than Che and twice as many as Phylis. Gene owns 3 times as many suits as Che. How many suits each do Gene and Phylis own?
6. If Bo's weekly income doubled he would be making \$500.00 a week more than Om. Bo's weekly income is \$700.00 more than one-half of Phi's. Phi makes \$1800.00 a week. How much does Om make?