

Assignment #6**Due on Wednesday, September 25, 2013**

Read Section 1.3 on *Real World Measurements: Dealing with Units*, on pages 41–57 in the text.

Do the following problems

1. A chemist has a 45% solution and a 10% solution of a hydrochloric acid. How much of each solution should be used to make 2 liters of a 35% solution?
2. A cleaning solution costs \$4 a liter and another one costs \$5 a liter. If the volumes are additive on mixing, what would be the cost of 150 liters of a mixture that contains 40% of the \$4 cleaning solution by volume?
3. What weight of iron ore containing 75% of iron must be used in order to obtain 18 tons of iron?
4. A car was driven twice as many miles in July as in each of the remaining months of the year. What fraction of the total mileage for that year occurred in July?
5. Suppose that you want to run a certain distance in 20% less time than you usually take to run it. By what percent must you increase your overall average speed?