**Molarity and Molality Race**

Answer the following questions in groups of three. The first group to get all of the questions right will get +3 toward their quiz grade, the second will get +2, and the third will get +1.

1) What is the molarity of a solution in which 50 grams of LiOH is dissolved to make 8.5 liters of solution?

2) What is the molality of a solution in which 50 grams of LiOH has 8.5 kg of water added to it?

3) Are the concentrations of questions 1 and 2 the same? Explain your answer.

4) If I were to evaporate the solvent from 1.5 L of 4.0 M NaCl, how much NaCl would remain in the bottom of the container?

5) If I add 450 grams of CaCl2 to 450 mL of water, what will the molarity of the resulting solution be?

6) Why can’t we find either the molarity or molality of a colloid?

7) Explain how you would make 250 mL of a 1.75 M NaOH solution.

8) Explain how you would make 250 mL of a 1.75 m NaOH solution.

9) When tested, the 1.75 M solution was found to have a higher concentration than the 1.75 m solution. Why?