**1-1-1 Activity**

1. a. If we added a number in the 1000’s to another number in the 100000’s, what would be the best rough estimate that can be made? Do the same for if we multiplied the two numbers.

b. If we added 7.8x1063 to 1.1X10^8, what would be the best rough estimate (in scientific notation) that can be made? Do the same for if we multiplied the two numbers.

c. Rufus and Dufus are studying for their chemistry exam, which be about Avogadro’s number, which is 6.2 x 10^23. Rufus remembers the 6.2 and Dufus remembers the 23. Who will do better on the exam?

d. If we added a polynomial with highest power x^3 to another polynomial with highest power x^5, what will be the highest power of the resulting polynomial? Do the same for if we multiplied the two polynomials.

1. Which of these stories model addition of, multiplication of, or division of these two fractions? Why do their answers (including units) make sense in the stories? Suggestion: First try the problems with “6” replacing 53/78 and “24” replacing 23/113. You need not solve the problems.
2. It takes 53/78 of an hour to sing an opera. How many hours will it take to sing 23/113 of the same opera?
3. It takes 53/78 of a gallon of paint to paint a wall. How many walls of the same size can you paint with 23/113 gallon of paint?
4. After using 53/78 of a gallon of gas to mow the lawn, you had 23/113 gallon of gas left in the mower. How much of a gallon of gas did you start with in the mower?
5. In his journey today, Alvin the Ant traveled 53/78 of a yard. If Alvin travels at 23/113 yards per minute and took no breaks, how long (in minutes) was Alvin’s journey?
6. In his journey today, Alice the Ant traveled 53/78 of a yard. If Alice traveled for 23/113 minutes, how fast did Alice travel?
7. Ambrose the Ant has traveled 53/78 yard, which is 23/113 of his entire journey. How long is Ambrose’s entire journey?

1. 5/6 of County A is covered by blacktop. 2/3 of County B is covered by blacktop. County A and County B are the same shape and size. Argue in two ways why the fraction of the combined counties A and B that is covered by blacktop is NOT 5/6 + 2/3.