**Advice on writing problems**: For all of these problems, both fractions should be fractions of the same size whole—there should be no problems where 1/2 is half of a whole and then 1/3 is 1/3 of 1/2. This is really easy to do if you use **measurement units** (1/2 gallon vs 1/3 gallon). If you use pizzas, you can do it, but it’s easy to make a mistake if you’re not careful with your sentences.

*Good problem*: Janet had 1/2 gallon of milk. She used 1/3 gallon of milk. How much milk is left?

*Bad problem*: Janet had 1/2 gallon of milk. She used 1/3 of it (which means 1/3 of 1/2 gallon). How much milk is left?

**Your assignment**:

**First write 4 word problems**:

A. Write a comparison word problem for 1/2 and 1/3 (*which* is larger)

B. Write an addition word problem for 1/2 + 1/3

C. Write a take-away subtraction problem for 1/2 – 1/3

D. Write a comparison subtraction problem for 1/2 – 1/3 (*How much* *more* does \_\_\_ have than \_\_\_?)

**Analyze these word problems**. Some of them are simple addition and subtraction problems, but others (about half) are not. Think about how you could model each of these using pictures or manipulatives. Write your solution to each problem, or explain why it can’t be solved. Then look at my analysis.

1. Ms. Roberts' class had a test in which 1/8 of the students got A's. On the next test, 3/8 of the students got A's. How many of the students received A's on one of the two tests?

2. It rained 1/2 an inch on Sunday and 2/3 inch on Monday. How many total inches of rain was there?

3. John ate half of the M&Ms in the package. Later, his sister ate 1/3 of the remaining M&M’s. How many M&M’s are left

4. Alice had 3/4 lb. of candy. She gave 1/3 lb. of the candy to Scott. How much candy does she have left?

5. In Monday, Jane got 4 cookies and half of them were chocolate chip. On Tuesday she got 6 cookies and 1/3 of them were chocolate chip. What fraction of the total cookies she had were chocolate chip?

6. Mary had 3/4 cup of juice in her glass. She drank 1/3 of it. How much juice is left?

7. Matthew read 1/8 of a book. Then, after an hour's break, he read 3/8 of the book. How much of the book did Matthew read?

8. An apple pie was cut into 8 slices. Sally ate 1 slice and Jim ate 3 slices. How many slices did they eat together? What portion of the pie is that?