MAT 221 **Ch 3: Mistakes You See in the Classroom**

There are many mistakes that students make when they learn to add, subtract, multiply, or divide.
For each mistake, do/talk about the following:

a) Work the problem out correctly. (No explanation necessary in this first step.)

[In steps b) – d) talk directly to the student. Be as specific as possible and include appropriate terminology in all explanations.]

b) Looking at a rough estimation or at the reasonability of the answer, alert the student that there must be a mistake in his/her work.

c) Identify and explain his/her mistake to the student.

d) Talk the student through the correct calculation focusing on avoiding the mistake from before.

- Work part a) for each problem
- Discuss parts b) – d) for each problem.
- For ONE subtraction of your choice, for ONE multiplication of your choice, and for ONE division of your choice, write paragraphs answering parts b) – d) as you would on an exam. This exercise is for practice only and will not be collected, but you should have other group members critique your work.

1) Susie subtracted:

$$\begin{array}{r} {\scriptstyle 4\ 12\ 15} \\ 6\not{2}\not{5} \\ -\ 3\ 4\ 8 \\ \hline 1\ 8\ 7 \end{array}$$

2) Bert subtracted:

$$\begin{array}{r} {\scriptstyle 6\ 10\ 10\ 12} \\ 7\not{0}\not{0}2 \\ -\ 2\ 4\ 6\ 4 \\ \hline 4\ 6\ 4\ 8 \end{array}$$

3) Aaron subtracted:

$$\begin{array}{r} 3\ 5\ 1\ 3 \\ -\ 1\ 7\ 0\ 8 \\ \hline 2\ 2\ 1\ 5 \end{array}$$

4) Doug multiplied:

$$\begin{array}{r} {\scriptstyle 2\ 1} \\ 4\ 3\ 3 \\ \times\ \ 8\ 6 \\ \hline 6\ 5\ 8 \end{array}$$

5) Ron multiplied:

$$\begin{array}{r} 4\ 7 \\ \times\ 5\ 3 \\ \hline 1\ 2\ 2\ 1 \\ +\ 2\ 0\ 3\ 5\ 0 \\ \hline 2\ 1,5\ 7\ 1 \end{array}$$

6) Linda multiplied:

$$\begin{array}{r} 9\ 2 \\ \times\ 3\ 6 \\ \hline {\scriptstyle 1}\ 5\ 5\ 2 \\ +\ 2\ 7\ 6 \\ \hline 8\ 2\ 8 \end{array}$$

page 2 of 2 (divisions) will be discussed separately, most likely next class period.