<div align="center">Part I</div>

Addition- The sum of two numbers is the combine total number of objects from putting together two collections of objects of the given sizes.

Subtraction- "Un-pairing" groups of objects.

Multiplication- a x b is the number of elements in a group of b.

Division- How many collections of b objects make a objects.

<div align="center">Part II</div>

- Aaron has 5 oranges, Blake has 7 apples, and Sarah has 3 bananas. If Aaron, Blake and Sarah combined all their fruit together what is the total amount of fruit they would have?
  - To solve this problem you would use addition. You would use addition because you are combining multiple sets together to get one total set.

- Ms. Smith bought two dozen cupcakes for her class of 18 students. If each student eats one cupcake how many cupcakes will be leftover?
  - To solve this problem you must use subtraction. You have to use subtraction because you are taking a certain amount of cupcakes out of the total amount of cupcakes to find how many will be left over.

- Mr. Johnson feeds his dog Sonny 3 times a day. How many times does the dog get fed in a week?
  - To solve this problem you have to use multiplication because you are trying to figure out how many times does the dog gets fed in a week. So you take the amount of times the dog is being fed in a day by how many days are in a week, so it would look something like 3x7=X

- Sally is reading a book that is 120 pages long. She wants to read the same amount of pages each night, how many pages would Sally have to read in order to finish the book in 10 days?
  - In order to solve this problem you must use division because you are trying to divide up the number of pages evenly between the 10 days.

Part III

1. Perform the following addition problem using the standard algorithm. Explain how each step corresponds to a manipulation of manipulatives.

       # @ E
   + & # !

2. Perform the following subtraction problem using the standard algorithm. Explain how each step corresponds to a manipulation of manipulatives.

       E # @
   -& E #

3. Perform the following multiplication problem using the standard algorithm. Explain how each step corresponds to a manipulation of manipulatives.

        ! # &
   xE & @

4. Perform the following division problem using the standard algorithm. Explain how each step corresponds to a manipulation of a manipulative

   EE&# ÷ # !

5. Perform the following problem using manipulatives. Explain all changes.

        # E !
   +& & E

6. Perform the following subtraction problem using manipulatives. Explain all changes.

        E # #
   -& @ E

7. Perform this following multiplication problem using manipulatives. Explain all changes.

          # &
    x ! E #

8. Jane has 9 coins that total up to .76 cents. How many quarters, dimes, nickels, and pennies does she have?

9. Lynn is reading a book that is 550 pages long, she wants to read the book in 10 days. How many pages does Lynn have to read to be able to finish the book in 10 days?

10. Three friends ran in a triathlon altogether it took 8 hours 36 minutes and 27 seconds to finish the race. If they all ran at the same speed how long did it take each person to finish their portion of the race?