Types of problems to expect on Quiz 2

There will be several problems where you identify what type of addition or subtraction a word problem is, and tell which of a pair of word problems has the more difficult problem type. These problems may be combined as on the assignment.

Some word problem types we spent a lot of time on were:
ARU vs PPW-WU
ACU
CQU vs CRU.

There will be several problems where you are asked to describe a direct modeling strategy. In particular, you should know all 3 subtraction direct modeling strategies (join to, separate from and compare).

There will be several problems where you are asked to draw a bar diagram for a word problem or a math-mountain (the problem will specify which type of diagram). You should also be able to write both a subtraction number sentence and an unknown addend number sentence for a bar diagram where one of the parts is unknown.

There may be a problem where you are asked to describe a subtraction number sentence using part-whole language.

There will be some problems where you will need to be able to describe both the counting up to and the count back by subtraction counting strategies.

There will be some problems where you will be asked to show how to solve an addition or subtraction problem by:

- Using 10-frames (especially for addition. I may ask you to find a way a child could use 10-frames to find a sum either by looking for doubles or moving some counters to make a 10).
- Adding up on an open number line, using multiples of 10 as bridge numbers, to subtract.
- Subtract in place values using negative numbers.
- Add using the expanded addition algorithm
- Subtract using the expanded subtraction algorithm *
- Write words or manipulative pictures to explain the standard algorithm for addition or subtraction*.

*maybe subtraction, maybe not until later.