Homework 4

1. **Textbook Problems**
   a. Textbook Section 3.3 (p. 118): #1, 2, 3, 4, 6 (ignore "expanded forms"; represent the problem using base-ten blocks), 13 (for 13b explain with base-ten blocks)
      - **Notes**
        - Whenever you are asked to draw a picture (like bundled toothpicks), just draw a picture of base-ten blocks.
        - The book refers to "regrouping". This is like in the Place Value lesson when we would rename 404 (4 *hundreds* and 4 *ones*) as 3 *hundreds*, 10 *tens*, and 4 *ones*.
2. **DELETED**
3. **IMAP Video 05: Zenaida (1:23) (Place Value / Computation)**
   Watch "Video Clip 5: Zenaida" on the IMAP CD.
   NOTE: This is not the best example of how to interview a child.
   After Watching the Video:
   a. The interviewer asks Zenaida "how many 10s are in 32?" Which kind of Equal Groups problem is this most like? Why?
   b. At the end of the clip a second interviewer asks "if there are 3 *tens* in 32, how many *ones* are there in 32?" What **other** possible correct answer could the child have given? Why would the other answer have also made sense?
   c. Say you want to find out if a child knows how many *ones* are in 316.
      i. How might you phrase a question to which 316 is definitely the correct answer?
      ii. How might you phrase a question to which 6 is definitely the correct answer?
4. **IMAP Video 19: Grade 3-4 Class (4:52)**
   Before Watching the Video
   a. Given the value of the fist expression in each of the following, find the value of the second expression without multiplying. **Briefly** explain the relationship between the first and second expressions.
      i. 3×59 is 177, how much is 30×59?
      ii. If 24×60 is 1,440, how much is 240×6?
      iii. If 1.5×46 is 69, how much is 1.5×92?
      iv. If 30×59 is 1,770, how much is 300×59?
      v. If 9×72 is 648, how much is 90×720?
      vi. If 400×720 is 288,000, how much is 401×720?
   b. Solve the following problems:
      i. How many *hundreds* are in 463,700? How many *tens* are in 463,700?
      ii. If *a*, *b*, *c* are digits, then how many *hundreds* are in *ab*,*c*00? How many *tens*?
      iii. If there are *X* hundreds in a number *Y*, then how many *tens* are in *Y*? Give a brief explanation of why.
   After Watching the Video
   c. Explain in your own words what Donnie (the second child in the video who says that there are 1,920 *hundreds* in the number, so there must be 19,200 *tens*) was talking about.
   d. This teacher is willing to proceed with the whole class discussion even though she does not follow Donnie's reasoning the first time she hears it. How might you prepare mathematically so that you will be able to assume the kind of role taken by this teacher?
5. **Activity 4AA – Part 7.**