Tutorial Session Notes
Grade 5
Quarter #1 (Week 1-8)

About these notes:

- These notes are primarily for those who are acting as the tutor – either a parent or a class teacher.
- In the first year of JYMA, Maria (our JYMA tutor) and I met every week and talked about grades 5-8, and we made a list of suggested topics for the Friday tutorial session.
- In order to support those who are acting as the tutor for their child or a whole class, I am sharing these notes with those who are acting as the tutor.
- Of course, these tutorial sessions are also an opportunity for the students to ask their tutor questions.
- If you are acting as the tutor, it may be helpful to read the section of the JYMA Handbook titled "The Role of the Tutor".

Week #1

- Introduce each other.
- Today is the first day – so make it fun! Perhaps, play a game.
- Ask about what topics they remember learning last year, and perhaps so a few simple problems related to this.
- Practice some simple mental math similar to what was done in the lecture, such as:
    - 30 x 50
    - 6 x 7000
- Go over LCM and GCF, and do these practice problems:
    - 10 & 15
    - 20 & 30
    - 11 & 7
    - 12 & 36
    - 10 & 9
    - challenge! 48 & 60

Week #2

- Simple examples of GCF and LCM
- Main thing for the class – "Story long division" and "flexible long division"
- 2 examples. 822÷3, 3258÷6.
    - For the easy one: do both methods, for the hard one just flexible long division.
    - For story LD: How much is in my bag of money? How much do you think we should give away now? etc - do it twice - give away different amounts.

Week #3

- Change problems. Examples:
    - bill: 2.35, paid: $3, change: ?
    - Bill 3.17 paid $5 change: ?
    - Bill 6.45 paid $20 change: ?
- If time, equivalent fractions. 3/8 = 6/16 = ?

Week #4

- For each one, give many Equivalent fractions
    - 5/6
    - 2/7
- Ask: what does 5/6 mean?
- Arithmetic problems:
    - 178+ 357
    - 823- 358
    - 53x4
    - 48x37

Week #5

- Review the question "what is the shortcut for finding the least common dominator?" answer: LCM
    - Review both techniques.
        - List all equivalent fractions to see the smallest CD,
        - What is the LCM between the 2 denominators.
- Give a couple of examples of adding fractions
- Go over Wednesday lecture explanation for the problem 402-146
    - To understand when borrowing from the zero, there is nothing in the tens place, now I'm going to borrow from 40 tens
- 2 examples mixed to improper:
    - 5⅓ to improper
    - 23/6 to mixed
    - Maybe a couple more
- Fact Families
    - Anytime we are given one fact, we know three others
    - Example If 57x46 = 2,622, then also we can say:
        - 46x57 = 2,622
        - 2,622 / 46 = 57
        - 2,622 / 57 = 46
    - Also, do these problems:
        - 8x20 = 160
        - 68+5 = 73
- Do mental math problems similar to that given at the end of lecture #2 this week.

Week #6

Mostly the same as last week, which is:

- Review the question "what is the shortcut for finding the least common dominator?" answer: LCM
- List all equivalent fractions to see the smallest CD,
- What is the LCM between the 2 denominators.
    - Give a couple of examples of adding fractions
    - Go over Wednesday lecture explanation for the problem 402-146
        - To understand when borrowing from the zero, there is nothing in the tens place, now I'm going to borrow from 40 tens
    - 2 examples mixed to improper:
      5⅓ to improper 23/6 to mixed
        - Maybe a couple more

- Fact Families
  - Anytime we are given one fact, we know three others
  - Example If 57x46 = 2,622, then also we can say:
    - 46x57 = 2,622
    - 2,622 / 46 = 57
    - 2,622 / 57 = 46
  - Also, do these problems:
    - 8x20 = 160
    - 68+5 = 73

<u>New for this Week</u>:

- Fractions of a whole number:
  1. What is 1/6 of 42? What is 5/6 of 42? - divide 42 by 6, add 5 of those.
  2. What is 1/4 of 16? 3/4 of 16?
  3. What is 3/5 of 30?
- Adding fractions. Follow the sequence of questions I gave in today's lecture.

Week #7

- Review trick for multiplying fractions, don't get into logic of it

  $^{2}/_{3}$ x $^{4}/_{5}$ $^{3}/_{10}$ x $^{2}/_{7}$

- A fraction of a whole number

  $^{3}/_{5}$ of 20, 2 different ways:
  - $^{1}/_{5}$ of 20 is 4 → Therefore $^{3}/_{5}$ of 20 is 12
  - $^{3}/_{5}$ x $^{20}/_{1}$
- Reduce: 20/24 6/30 18/22
- Conversion problems: Mixed to improper, and improper to mixed

  2¾ $^{12}/_{5}$ 6 $^{2}/_{9}$ $^{35}/_{8}$
- If time, work on group assignment puzzles

Week #8

- Review thoroughly these four aspects of fractions:
  - add/sub - give couple problems
  - multiplication - give couple problems
  - reducing - give couple problems
  - converting mixed, improper - give couple problems (2 of each)
- vertical multiplication:
  - 354*26
- Go back to doing borrowing:
  - 804 - 237
    - We need to "borrow" 1 ten, but there isn't anything in the ten's place, so we look to the hundred's place. When borrow from the 80, cross out the 80, and write 79.
  - 7,006 - 3,348
    - cross out 700, borrowing a ten, but don't have, so to borrow a ten, cross out 700, and write 699.
- Look at group assignment puzzle – if extra time, go over any they haven't done.