Tutorial Session Notes
Grade 5
Quarter #3 (Week 17-24)

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 #17

- Practice fractions:
  - 7/15 - 4/15
  - 3/20 + 1/4
  - 7/9 + 5/6
  - Ask: (with each one recall that "of means multiply)
    - What is 3/5 of 20?
    - What is 3/5 of 7/8?
    - What is 1/5 of 23?
  - Division:
    - 5/6 ÷ 1/5
    - 3/8 ÷ 7/8
    - 1/2 ÷ 11
  - Reduce:
    - 6/33
    - 30/48
    - 60/800
- Standard Long Division (do as many as you have time for)
    - 216 div 3
    - 238 div 7
    - 3,258 div 9
    - 8,657 div 5

Week #18

- Given that we are just beginning the decimals main lesson, there isn't much need for skills practice. Therefore, it's a good time to play a game. Perhaps teach them the game called "I've got your number"
  (See Puzzle Book).
- If they didn't do the puzzles on the group assignment, you can do those.
- Here are two new (challenging) puzzles:
  - Find 2 numbers that multiply to 180 and add to 41 (ans: 5, 36)
  - Find 2 numbers that multiply to 180 and subtract to 41 (ans: 45, 4)
- If extra time, review US measurement problems.

Week #19

- Test to make sure they fully understand what a given decimal means.
  - 0.823 can be 823/1000, or 8/10 + 2/100 + 3/1,000
  - difference between 0.9, 0.09, and 0.009
  - 0.71 is the same as 0.710
    (With the group assignment it was 0.0200, which is the same as 0.02)
- Convert fractions to decimals
  - 18/100
  - 39/1000
  - 21/25
  - 7/200
- compare which is bigger:
  - 0.634 or 0.628
  - 0.71 or 0.693
- if time, play games

Week #20

- Metric measurement
  - understand how the six metric prefixes work.
  - Give them 2, have them tell how many of one is in the other
    Example: How many decimeters are in hectometer (Ans: 1000 because it is three "steps")
  - Make sure they understand the problems from Tuesday's and Thursday's groupwork conversion problems. Don't give different ones as this will likely get too complicated.
- Decimals
  - Ask if they've learned the shortcut for adding decimals
  - Ask if they've learned the shortcut for multiplying decimals.
  - Give them a few easy problems similar to what's on groupwork.

Week #21

- Practice multiplying, adding, subtracting decimals
- Determine which is greater:
  - .684 or .7
  - .028 or .03
  - 0.007 or 0.00085
  - 1/2 or 8/15
  - 2/3 or 3/5
  - 7/11 or 5/8
- Convert to a decimal:
  - 37/50
  - 1/4
  - 8/1,000
  - 9/20
  - 62/10
  - 347/100
- Convert to a reduced fraction:
  - 0.97
  - 0.006
  - 0.019
  - 5.9 (could be $\frac{59}{10}$ or $5\frac{9}{10}$)
  - 17.33 (could be $17\frac{33}{100}$ or $\frac{1733}{100}$)
- Ask if they did Thursday's puzzles
- If extra time, play a game.

Week #22

- Practice multiplying and dividing decimals with powers of ten, such as:
  - 34.6 ÷ 1000
  - 0.052 x 100
  - make up other similar problems
- Practice metric conversion similar to Thursday's group work
- Practice adding, subtracting, and multiplying decimals
- Halfway problems with fractions:
  - what is halfway between $^{3}/_{17}$ and $^{9}/_{17}$
  - what is halfway between $^{3}/_{5}$ and $^{4}/_{5}$
  - what is halfway between $^{1}/_{2}$ and $^{5}/_{6}$
  - what is halfway between $^{2}/_{7}$ and $^{3}/_{10}$
- Practice Long division:
  - 476 ÷ 7
  - 638 ÷ 5
- If extra time, play a game.

Week #23

- Ask if need help with group work and individual word problems
- Ask how rope exercise went
- Ask if need help with puzzles from group work
- Long division practice:
    - 6,053÷9 Important 1st question: Is the answer in the thousands, hundreds, etc. How many hundreds can I get out of this?
- Word problem practice:
    - If ten apples cost $4.30, what is the cost of 37 apples?
    - There is a litter of 8 kittens. 420g per kitten, and put them all into the basket together. The basket weighs 2.32 kg, how much do they all weigh including the basket?
- If more time, play game.

Week #24

- Ask if they have questions regarding word problems from the assignment.
- Word problems.
    - 10 packages of cookies costs $35, what do 6 packages cost?
    - 2 bottles of shampoo costs $5.40, how much do 3 bottles cost?
    - John makes $120 in a 6 hour work day. How much would he earn in $40?
- Fraction practice:
    - 3/8 + 1/3
    - 5/6 x 2/3
    - 7/10 ÷ 2/5
    - $5\frac{1}{8} + 4\frac{3}{8}$
    - $9\frac{1}{5} - 2\frac{4}{5}$
        - One way to do this is first to subtract 2, which becomes $7\frac{1}{5} - \frac{4}{5}$, then count back by $^4/_5$.
- Ask if they figured out the math magic trick (choose a 2-digit number, add 7, multiply by 3, subtract original number). If they figured it out, then try to solve these:
    - If my final number is 51, what was my original number?
    - If my final number is 83, what was my original number?
    - If my final number was 185, what was my original number?
- Ask them how far they got with the Fibonacci sequence 1, 1, 2, 3, 5, 8…(from the group work). (Don't give away the "cool" stuff about the Fibonacci sequence; save that for 7th grade.)
- If time, 8,437 div 3 long division.