



The Math & Science Exploratory School

Middle School 447

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June 1, 2018

Dear Incoming 6th Grade Math Student,

Congratulations on being accepted to MS 447! As you transition to middle school, you may be excited, nervous, and may not know what to expect. We want you to know that your 6th Grade Math teachers look forward to getting to know you as a person and a mathematician.

To help us get to know you a little bit better, we'd like for you to complete the following assignment. In Part One, we'd like for you to share with us your strengths and challenges as a Math scholar. We want to know how you learn best as a mathematician and how we can best support you so that you can have a super fabulous year at MS447. For Part Two, complete the "Egyptian Fractions Task" on the other side of this page.

Summer Assignment Part One

On loose-leaf paper with your first and last name on it, answer the following questions:

1. When you hear the word Math, what words or images pop into your head? Why?
2. How do you feel about Math and why?
3. Which elementary school did you attend?
4. What are your strengths as a mathematician? (Do you know your multiplication table well? Have you mastered long division?)
5. What Math topics do you like most and why? (Examples: fractions, geometry, algebra, decimal operations)
6. Which Math topics do you think are more challenging and why?
7. How much time do you typically spend on completing your Math HW?
8. What are some things that we should know about you as a learner that will help us support you in the class?
9. What are some of your special interests? (Do you like art, comics, puzzles, drawing, Dr. Who, anime, etc.)
10. How well do you feel about working in groups?
11. How well do you feel about working independently?
12. What are your Math goals for the upcoming school year?

Here are some additional guidelines to help you complete this assignment in a thoughtful manner:

- Your work should be at least one-page long, but it can be longer than one page.
- Do your best to write neatly so that we are able to read your answers that you worked so hard on sharing with us. (You may type your letter if you want to in Times New Roman 12 font.)
- Please make sure to proofread your letter.

We are very excited to get to know you as learners and people. Have an amazing summer and keep in mind all the ways you use Math during the summer. We look forward to seeing you on Thursday, September 5, 2018.

All the best,

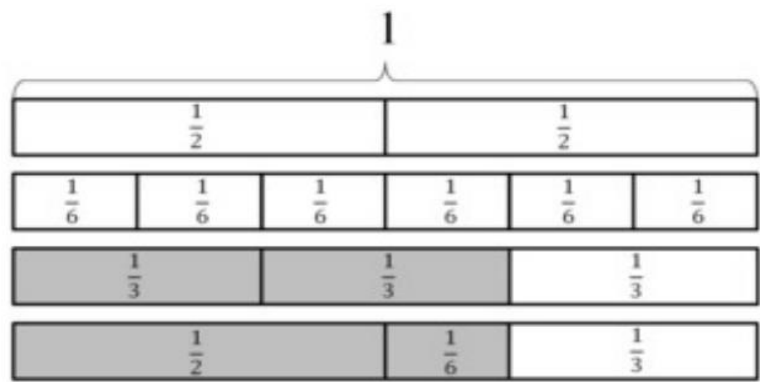
6th Grade Math Team

Summer Assignment Part Two

You may solve in the space below. Use additional paper if you need it!

Ancient Egyptians used unit fractions, such as $\frac{1}{2}$ and $\frac{1}{3}$, to represent all fractions. For example, they might write the number $\frac{1}{6}$ as $\frac{1}{2} + \frac{1}{3}$.

Example:



We often think of $\frac{1}{6}$ as $\frac{1}{2} + \frac{1}{3}$, but the ancient Egyptians would not write it this way because they didn't use the same unit fraction twice.



LOOK! (All Eyes on You!)

a. Write each of the following Egyptian fractions as a single fraction.

| Problem | Student Work |
|--|--------------|
| i. $\frac{1}{2} + \frac{1}{3}$ | |
| ii. $\frac{1}{2} + \frac{1}{3} + \frac{1}{6}$ | |
| iii. $\frac{1}{2} + \frac{1}{3} + \frac{1}{6}$ | |

b. How might the ancient Egyptians have written the fraction we write as $\frac{1}{2}$? (Show your work below).

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