**Welcome to 7th Grade Math!**

Seventh grade is a pivotal year in the development of rich mathematical thinking. Research has shown that students who do well in Algebra I (usually taken in 9th grade) are more likely to graduate high school and experience college success. In 7th grade, students cultivate the conceptual understandings, mathematical practices and rigorous critical thinking skills required for future success in Algebra, high school, college and careers.

### Developing Fluency

The major work of 7th grade mathematics is to:
- develop an understanding of ratios and proportional relationships, and
- add, subtract, multiply and divide rational numbers (i.e. whole numbers, fractions, decimals, and integers).

Play the attached I CAN RATIOS game to reinforce your understanding of ratios, unit rates, and equivalent ratios.

Play the attached war games with a friend or family member to develop your fluency with comparing integers and rational numbers.

### Suggested Reading List

There are great books about math and/or mathematicians that help develop concepts while telling entertaining stories. Here are a few suggestions:

- *Multiplying Menace* by Pam Calvert
- *The Sir Circumference Series* by Cindy Neuschwander
- *Pythagoras and The Ratios* by Julie Ellis
- *The Murderous Math Series* by Kjartan Poskitt
- *A Grain of Rice* by Helena Claire Pittman
- *The Math Inspector Series* by Daniel Kenney and Emily Boever
- *Mathematicians Are People Too Series* by Luetta and Wilbert Reimer

### IXL

Murray is privileged to have access to our IXL program all summer. You can use the IXL Summer Math Boost Skill Plan to reinforce your understanding of the most critical 6th grade math skills. Or, use the diagnostic arena to see where you need to improve.

The IXL Summer Math Boost Skill Plan can be accessed at this link: [https://drive.google.com/file/d/1R4WNg7XpgX71OXSxjh_iDr9Pyw9e0oSL/view?usp=sharing](https://drive.google.com/file/d/1R4WNg7XpgX71OXSxjh_iDr9Pyw9e0oSL/view?usp=sharing)

### Khan Academy

This website is a great place to go to master math skills that will prepare you for success in 7th grade. The site features instructional videos, practice sets, and small assessments to help you track your growth. Go to [https://www.khanacademy.org/join/DGVB3YMQ](https://www.khanacademy.org/join/DGVB3YMQ) to join the Murray Get Ready for 7th Grade Math course.