Dear Parents of future Algebra students,

Welcome to $8^{\text {th }}$ grade Algebra. We have decided to use IXL to administer the summer packet this year. There are several advantages to this. The student receives immediate feedback including worked out solutions as needed, gets practice using online tools, and the students are very comfortable with IXL so there is no learning curve with the user interface. Please do not allow use of a calculator. I have put a copy of the assignment on my website and on google classroom.

The purpose of this packet, as always, is to help the student retain what they already know and give them the opportunity to practice it a little. This will allow me to have more time in class to move forward and do more valuable activities with the students. There is nothing new in this packet. Some of the material has been reinforced in several grades. If, however, your child requires assistance, they can look back at last year's notes, access several helpful websites, links to which can be found on my website and on google classroom, or they can get help. It is important that the student does not receive so much help that he or she is incapable of independent work. This can be tricky, I know, but it is essential.

In September, we will take one day to answer any questions that may linger, and then an in-class assessment will be given. The quiz will be a 20 question multiple choice quiz which will enable me to identify any student who requires special attention. The quiz will be graded and count in the first marking period grade.

I look forward to meeting you next year and I will make every effort to make sure that your child has an outstanding $8^{\text {th }}$ grade year.

1. Login to IXL.com/signin/littlesilver.

Your username is grad year, last name, first initial example: 17lesche
Your password is last name and last 3 numbers of student id example: lesch123 If you are new to the district, you need to contact the school and get your name added to the IXL roster.
2. Below is a list of skills that are required to be "practiced" by the first day of school. To accomplish this task you will complete the number correct as indicated below. Some skills require more practice than others. They do not need to be in a row but you must keep track of the number correct for yourself. Tally marks on your paper work well.
3. If you are getting the answers wrong, first READ THE CORRECT WORKED OUT SOLUTION. If you still need help, you can look at other websites that are recommended on google classroom.
4. Remember, the dates below are guidelines to help you pace yourself. I will check on the first day of school to see how many problems you did and how long it took you. I can see dates, times, and all correct and incorrect responses. Make sure that at all times you see your name in the upper right corner so you know your work is being recorded.
5. I will be quizzing you when you get back so make sure that you can do these problems independently. Too much help can be a problem.

| $\mathbf{8}^{\text {th }}$ grade skill topics to be completed by 8/1 | IXL category | Number Correct |
| :--- | :---: | :---: |
| Exponents with decimal and fractional bases | F. 5 | 10 |
| Understanding negative exponents | F. 6 | 20 |
| Evaluate negative exponents | F. 7 | 20 |
| Multiplication with exponents | F. 8 | 20 |
| Division with exponents | F. 9 | 20 |
| Multiplication and division with exponents | F. 10 | 10 |
| Power rule | F. 11 | 20 |
| Evaluate expressions involving exponents | F. 12 | 10 |
| Identify equivalent expressions involving exponents | F. 13 | 10 |
| Pythagorean theorem: word problems | R. 4 | 10 |


| $\mathbf{8}^{\text {th }}$ grade skill topics to be completed by 9/1 | IXL category | Number Correct |
| :--- | :---: | :---: |
| Solutions to inequalities | X.1 | 20 |
| Graph inequalities on number lines | X.2 | 20 |
| Write inequalities from number lines | X.3 | 20 |
| Solve one-step inequalities | X.4 | 10 |
| Graph solutions to one-step inequalities | X.5 | 10 |
| Solve two-step inequalities | X.6 | 10 |
| Graph solutions to two-step inequalities | X.7 | 10 |
| Solve multi-step inequalities | X. 8 | 10 |
| Graph solutions to multi-step inequalities | X.9 | 10 |
| Add and subtract polynomials using algebra tiles | BB.3 | 20 |

