

7th Grade Summer Math work for students who were in Advanced Math this year.

Thank you for putting forth the time and effort to work on the assignments that we have listed below and on the next page. These are lessons and/or skills with which you need to be familiar. We know that you may have some difficulty with the lessons because you have to learn/review the information on your own. We have tried to assign mostly odd problems since those answers can be found in the back of the book and you can check your answers.

Enjoy your summer, even though you have math work to complete!
Ms. Pearson, Ms. Fiorillo, Ms. Doig

1) The textbook can be accessed on line at **bigideasmath.com**. Just click on the student tab and then the 8th grade (blue) textbook. Once there, click on the chapter you want and then the “e-book” tab. This will show you the titles of each lesson. Click on the lesson to go to the reading and problems. If you need extra help you can also click on the tutorial section of the lesson for more help.

2) When you read the lessons, make sure you read EVERYTHING including the information in the **REMEMBER** and **STUDY TIP** sections.

3) Students with limited or no internet access will be given an 8th grade textbook.

8th GRADE TEXTBOOK (BLUE BOOK)

CHAPTER 1 Solving Equations

Although we have spent time solving equations, the 7th grade advance curriculum actually skipped this chapter. I believe it is VERY important to review these concepts since knowing how to solve multi-step equations is VITAL to success in Algebra.

Lesson 1.2 Solving Multi-step equations

- Read text pages 12 – 13 Remember that you solve 2 step equations in reverse order of operations. You may have to combine like terms first. Look over examples 1 – 3 in detail
- Complete text page 14 #6 – 11 (Remember to CHECK your answer.)

Lesson 1.3 Solving equations with Variables on Both sides of the equation

- Read text pages 18 – 19 Example 1 explains how to get the variable on the same side of the equation.

You ISOLATE the entire VARIABLE quantity (coefficient and variable) by adding or subtracting the quantity to both sides.

Example 2 Explains that you have to use the DISTRIBUTIVE PROPERTY to “remove” the parenthesis. The **distributive property** is when you multiply the number outside the parenthesis to EVERYTHING inside the parenthesis.

- Complete text pg 20 # 6 – 14

CHAPTER 2 GRAPHING LINEAR EQUATIONS AND LINEAR SYSTEMS

All the lessons in this chapter are actually taught in the Algebra Curriculum so I am not going to assign you problems to complete, but I do want you to read over all the Lessons 2.1 to 2.7. (Text pages 48 – 98) Please look at the examples and attempt some of the On Your Owns, too.

These are some vocabulary words you should be familiar with.

solution points, linear equation, solutions, slope, rise, run, x-intercept, y-intercept, slope-intercept form, standard form, system of linear equations, solution of a system of linear equations.

CHAPTER 3 WRITING LINEAR EQUATIONS AND LINEAR SYSTEMS

Again, all the lessons in this chapter will be taught in the Algebra Curriculum so I am not going to assign you problems to complete. However, I do want you to read over Lessons 3.1 to 3.5 to familiarize yourself with the terms. (Text 108 – 137) Please look at the examples and attempt some of the ON YOUR OWN. **Pay particular attention to slope and how to find it.**

SKIP CHAPTER 4.

CHAPTER 5 ANGLES AND SIMILARITIES

Read all the lessons and complete Chapter Review on text pages 221-223. Answer key is attached.

CHAPTER 6 HAS BEEN DONE

CHAPTER 7 DATA ANALYSIS AND DISPLAYS

Lesson 7.1 Measures of Central Tendency • Read Text 276 – 277 Pay close attention to Example #2 and what an **OUTLIER** is and how it affects mean, median and mode

Lesson 7.2 Box – and – Whisker Plots

- Read text pages 282 – 283 You need to find the median of the data first. You then find the 1st quartile, which is the median of the first half of the data. You then find the 3rd quartile, which is the median of the 2nd half of the data. Complete OYO #1 – 2
- text pg 284 # 5 – 7

Lesson 7.3 Scatter Plots and Lines of Best Fit

- Read text pgs 290 – 292 Pay close attention to the difference in a positive, negative and no relationship scatter plot. Complete OYO #1 – 4

CHAPTER 8 LINEAR INEQUALITIES (The good news is you solve inequalities just like equations by doing the inverse operation to both sides of the equation.)

Lesson 8.1 Writing and graphing inequalities • Read text pages 314 – 315 Pay close attention to the description of **graph of an inequality**. If the inequality is \leq or \geq , then you put a closed circle on the number, but if the inequality is just $<$ or $>$ you put an open circle at the number. You then shade all inequalities in the direction that makes the statement true. • Complete text pg 316 #1,3,5,7,11,13,17

Lesson 8.2 Solving Inequalities Using Adding or subtracting • Read text pages 320 – 321 Pay close attention to the graphing and the “Reading” tab on pg 321 • Complete text pg 322 #7 – 15 odd

Lesson 8.3 Solving Inequalities Using Multiplication or Division

- Read text pages 328 – 330. Remember that when multiply or divide by a negative, you **MUST** reverse the inequality symbol when you solve
- Complete text 331 – 332 #1,2, 11-23 odd, 39-40

Lesson 8.4 Solving Multi-Step Inequalities

- Read text pages 336 – 337. Remember that you solve multi-step inequalities by doing the inverse operation to both sides of the inequality in reverse order of operations.
- Complete text pg 338 #5 – 19 odd

CHAPTER 9 HAS BEEN DONE.