

Honors Algebra 2

Summer Required Work:

Hello Wonderful Honors Algebra 2 students,

I hope you are having a great start to summer! Congratulations for being recommended by your teacher for the Honors Algebra 2 class! This summer work will allow you to be successful in the Honors Algebra 2 Course and be prepared for the Cumulative Test on Chs. 1-3 that you will take within a week from returning to school. You will need to work through the first 3 chapters of the textbook this summer. I will review the first 3 chapters during the first 3 class periods. What makes this course an Honors Algebra 2 Course is your willingness to put time in this summer understanding the first 3 chapters and then by doing that, we will start with Ch. 4 and then complete the last 2 chapters in the book that include the Trigonometry. The normal Algebra 2 class will not be getting to the last 2 chapters that cover Trigonometry, so you all are in for a special treat!

Here is the list of the assignments from the book and math skills from IXL all incoming Honors Algebra 2 students should complete over the summer. For the textbook assignments, each assignment should be completed and will be able to be used as notes on the Cumulative Test for Chs. 1-3. For the IXL assignments, each student should complete the sections below **to a score of 50** by working 15-20 minutes per day over the summer vacation. Please do not try to finish all of the assignments at the beginning of summer just to, "Get Them Done." Instead, build the habit of 15-20 minutes per day. This will keep your mind mathematically engaged through the summer and will enable you to start the new year "running!" The 15-20 minutes per day should not be burdensome and reaching a score of 50 in each section is not difficult. The 15-20 minutes you spend each day will keep you primed and ready to tackle next year's adventure in mathematics!

Have a wonderful summer! I am available via email over the summer except for 6/12-18 and 7/8-16. Please email me stmcdowell@cvcs.org

Mrs. McDowell

Here are all of the sections of IXL for Honors Algebra 2. **You will want to complete each section to a score of 50 from the given list below.** Log on to the website: www.ixl.com/signin/cvcs. Then put in your username and password and begin the extra credit opportunity by clicking on the icon "Math" at the top of the page and then selecting "Algebra 2". Once you click on Algebra 2, you will see the following sections to complete-Choose only the sections I have listed below in green! Any other sections will not receive credit! I will be able to see your progress throughout the summer. This is summer work and must be completed by the first day of school in order to receive the credit. Every student that is going to take Honors Algebra 2 (or Regular Algebra 2 or Intermediate Algebra 2) will need to purchase the textbook: **Algebra 2 Common Core, Pearson 2015; ISBN #: 978-0-13-328116-3**

Sometimes IXL changes the section numbers around, **so follow the section title** if for some reason the number and the title do not match up. Remember, you only need to complete each section to a **score of 75**.

Username:

Password:

IXL's for Honors Algebra 2 summer work. Each IXL bolded topic below will count as 1 homework assignment. The more sections in the bolded topic, the more points the homework assignment is worth. For example the first bolded topic is Variable expressions, this would count as 1 homework assignment and count for 10 pts since there are 5 sections in this topic (2 pts for each section). Remember, you only have to get to a **score of 50** for each section:

Variable expressions

1. **A.1** Evaluate variable expressions involving integers
2. **A.2** Evaluate variable expressions involving rational numbers
3. **A.3** Simplify variable expressions using properties
4. **A.4** Sort factors of single-variable expressions
5. **A.5** Sort factors of multi-variable expressions

Equations

1. **B.1** Solve linear equations
2. **B.2** Solve linear equations: word problems
3. **B.3** Solve equations: complete the solution
4. **B.4** Solve absolute value equations
5. **B.5** Graph solutions to absolute value equations
6. **B.6** Solve multi-variable equations

Inequalities

1. **C.1** Graph a linear inequality in one variable
2. **C.2** Write inequalities from graphs
3. **C.3** Write a linear inequality: word problems
4. **C.4** Solve linear inequalities
5. **C.5** Graph solutions to linear inequalities
6. **C.6** Solve absolute value inequalities
7. **C.7** Graph solutions to absolute value inequalities
8. **C.8** Graph a two-variable linear inequality
9. **C.9** Graph solutions to two-variable absolute value inequalities

Functions

1. **D.1** Domain and range
2. **D.2** Identify functions
3. **D.3** Evaluate functions
4. **D.4** Find values using function graphs
5. **D.5** Complete a table for a function graph
6. **D.6** Find the slope of a linear function
7. **D.7** Graph a linear function
8. **D.8** Write the equation of a linear function
9. **D.11** Graph an absolute value function
10. **D.12** Domain and range of absolute value functions: graphs
11. **D.13** Domain and range of absolute value functions: equations
12. **D.14** Transformations of absolute value functions

Systems of equations

1. **E.1** Is (x, y) a solution to the system of equations?
2. **E.2** Solve a system of equations by graphing
3. **E.4** Find the number of solutions to a system of equations
4. **E.5** Classify a system of equations
5. **E.6** Solve a system of equations using substitution
6. **E.8** Solve a system of equations using elimination
7. **E.10** Solve a system of equations using any method
8. **E.11** Solve a system of equations using any method: word problems

9. **E.12** Solve a system of equations in three variables using substitution
10. **E.13** Solve a system of equations in three variables using elimination
11. **E.14** Determine the number of solutions to a system of equations in three variables
12. **E.15** Solve a system of linear and quadratic equations

Systems of inequalities

1. **F.1** Is (x, y) a solution to the system of inequalities?
2. **F.2** Solve systems of linear inequalities by graphing
3. **F.3** Solve systems of linear and absolute value inequalities by graphing
4. **F.4** Find the vertices of a solution set
5. **F.5** Linear programming

*From the textbook, please complete the following chapter review assignments. Check all your answers in the back of the book to see if you are doing the problems correctly. Please write the problem and show work for each assigned problem. **Remember all the problems you do from the textbook, you will be able to use as notes to help you succeed on the first test of the semester which is the Cumulative Test Chs. 1-3. The test questions for the Cum Test will be similar to the problems from these 3 assignments:**

Ch. 1: pgs. 51-52 (6-34) even

Ch. 2: pgs. 123-126 (4-52) even

Ch. 3 pgs. 184-186 (4-28) even, not 22, do #9 instead