

College Algebra II Summer Assignment 2024



These are the directions for your summer assignment for next year's course. This is an opportunity for you to review selected topics from Algebra One to make sure you are ready for the new material in Algebra Two.

Please read the directions for your summer assignment before the end of school so you can COMPLETE THE NEEDED FIRST STEPS BY JUNE 16th and so you are clear on your tasks for the rest of the summer.

1. DO THESE TWO STEPS BEFORE JUNE 16th!!
 - Join the College Algebra 2 - Summer Class in Google Classroom using the directions on page 2 of this packet.
 - Create a DeltaMath account/join our Summer Algebra 2 class using the directions on page 2 of this packet.
2. Go online to nwr7.com, HIGH SCHOOL, Academics, Summer Assignments. On the summer assignments page, look under College Algebra II Files 2023. This part of the page has resources to help you with your assignment.
3. **Print out (or copy) the vocabulary pages** and read through them. This list of vocab will be turned in with your summer assignment on the first day of school.
4. **Read through the explanations and sample problems and for each topic under the pdf Mini Lessons.** The letters that identify each topic correspond to either a DeltaMath assignment or a section in the packet problems on the following pages. A suggested strategy is to read a Mini Lesson and then try the connected assignment. Then move onto the next Mini Lesson.
5. **A list of the topics/assignments is on page 3 of this packet.** Use the list to pace yourself through all of your summer work.
6. For assignments in DeltaMath... Follow the directions in the DeltaMath instructions section on page 2.
7. For topics whose assignments are in this packet... Try out the first practice problem in this packet for each topic (use pencil!). Then **check your answer for the first problems** on the page called Sample Problems Answer Key found on the last page of the Mini Lesson packet. **Show evidence that you've checked these problems by using pen to mark them right or wrong.** Rework the problem until you get it correct.
8. Complete all of the assignments in both DeltaMath and in this packet before the first day of school. If you have misplaced your packet and don't have a printer, you may do the packet problems on lined paper, as well, labeled clearly. **Use pencil and show all work**, except for the few assignments on DeltaMath for which work is not required (you may still choose to show your work if that is helpful). **When you are finished, upload a picture/scan of the packet problems and all of your work from DeltaMath to the assignment in Google Classroom.**

☞ **Your summer assignment will count for 5 homework checks and will be collected on the first day of class.**

The printed vocabulary pages must be turned in, as well.

☞ On the **fourth day of school, you will have a test** on the summer assignment material. Two class days (plus the first day) is not enough time to re-teach the information in the packet. It is your responsibility to come to school on the first day with only the questions that you could not work out on your own.

For the first day of class:

- 📖 Have your summer **assignment**, with the printed vocabulary, stapled and ready to turn in.
- 📖 Solely for Algebra II, have a **binder ready** with dividers, white lined paper and graph paper. It is recommended that you have at least a 2" binder.
- 📖 Bring your **graphing calculator**. We recommend the TI -84 or TI-83.
- 📖 Bring your **pencils** (and one pen for corrections) and a ruler.



This will help us get off to a great start and lead us to an enjoyable and rewarding school year!

Mrs. Gallaway and Mr. Griffith

Instructions for joining our Google Classroom class:

- Go to classroom.google.com. On the Classes page, click the + symbol in the top corner to add, and then choose “Join class.” Enter the code: **x3f5udn**, and then click “Join.”
- Check your email and/or Google Classroom periodically over the summer for announcements.

Instructions for getting started in DeltaMath:

- 1) Go to <https://deltamath.com/>
- 2) Click “Create an Account” and type in the teacher code: **477084** or use the class code **EW76-H9ZN**. (If you already have an account, see directions below).

Note: The DeltaMath class for the summer assignment is under Mr. Griffith’s name but will be used by students in both Mr. Griffith’s and Mrs. Gallaway’s sections. Both teachers will be checking DeltaMath regularly to monitor your progress.

- 3) Use your school email to create a username and password (password is up to you but it is convenient to use your current school Google password), type your first and last name, and then select “College Algebra 2 Summer Class” from the dropdown section menu.

If you already have a DeltaMath account with your current NWR7 email, then instead of steps 2 and 3 you will 2) log into your existing DeltaMath account and then 3) Go to TOOLS and then MANAGE LOGIN AND TEACHERS where you will enter the teacher code or class code and section as described above.

For assignments in DeltaMath...

- Log into DeltaMath and choose the corresponding assignment from your “Upcoming Assignments” list.
- Complete problems of that type until you have reached the required score for that assignment.
- If you get some problems incorrect along the way, it will take additional correct answers to reach the required score. Look at the explanations for any problems you get incorrect and/or choose to “Watch a help video” for more instruction.
- Even though they are being completed online, many of the DeltaMath assignments require written work. Check the assignment list on page 3 to know for certain. **For the assignments that indicate that you must record your written work, complete your work on lined paper with the assignment letter clearly labeled and problems either numbered or clearly separated.** As stated on the first page directions, you will both submit a scan of your work on Google Classroom and hand in your hardcopy on the first day of school.

We suggest that you watch the following video to get a tour of the menus in DeltaMath, to see how to access and work through an assignment, and to see how the scoring works.

Video link: <https://www.youtube.com/watch?v=wyk2jjEvs4U&feature=youtu.be>

Instructions for getting in touch with us over the summer:

If you have questions during the summer about the assignment, feel free to contact us via Google Classroom or one of our emails. Emailing both of us is a great idea so that whichever of us sees your question first can respond – we will try to be timely but will not be checking email every day.

Emails: jgallaway@nwr7.org rgriffith@nwr7.org

Assignment Breakdown by Topic:

- A. Writing an Equation of a Line Given a point and the Slope – DeltaMath – SHOW WORK
- B. Given Two Points, Write the Equation of the Line - DeltaMath – SHOW WORK
- C. Solving Literal Equations - DeltaMath – SHOW WORK
- D. Changing Equations into Slope Intercept Form - DeltaMath – SHOW WORK
- E. Graphing from Slope-Intercept Form - DeltaMath
- F. Graphing Systems of Equations - DeltaMath
- G. Solving Systems Using Substitution - DeltaMath – SHOW WORK
- H. Solving Systems of Equations by Elimination/Linear Combination - DeltaMath – SHOW WORK
- I. Word Problem Applications of Linear Systems - DeltaMath – SHOW WORK
- J. Product of Powers Property of Exponents - DeltaMath
- K. Power of a Power Property of Exponents - DeltaMath
- L. Quotient of Powers Property of Exponents – DeltaMath
- M. Zero and Negative Exponents – DeltaMath
- J-M Combined Practice – Exponent Rules - DeltaMath
- N. Scientific Notation - DeltaMath
- O. Solving Inequalities – DeltaMath – SHOW WORK
- P. Two-Variable Inequalities - DeltaMath
- Q. Adding & Subtracting Polynomials - DeltaMath
- R. Multiplying Binomials – DeltaMath – SHOW WORK
- S. Function Notation – DeltaMath – SHOW WORK
- T. Practice with non-calculator computations – DeltaMath – SHOW WORK
- U. Translations of Graphs Review – Packet Problems – SHOW WORK
- V. Solving Absolute Value Equations – Packet Problems – SHOW WORK

U. Translation of Graphs Review

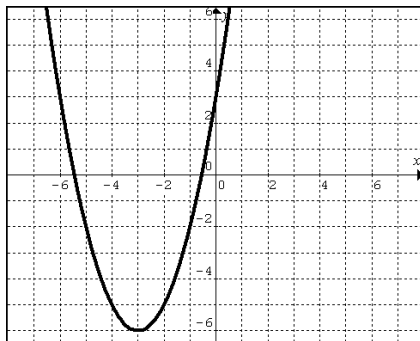
READ MINI LESSON U BEFORE YOU COMPLETE THIS SECTION! CHECK YOUR ANSWERS TO #1a, 2a, and 3a USING THE SELECTED ANSWERS AFTER THE MINI LESSONS TO MAKE SURE YOU ARE UNDERSTANDING WHAT THE PROBLEMS ARE ASKING.

1. Describe each graph as a transformation of $y = |x|$ or $y = x^2$. Then write its equation.

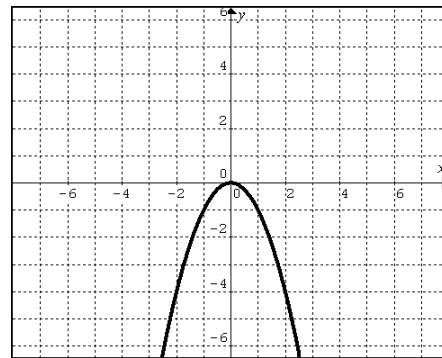
a. Describe the transformation in words:

b. Describe the transformation in words:

Write the equation:



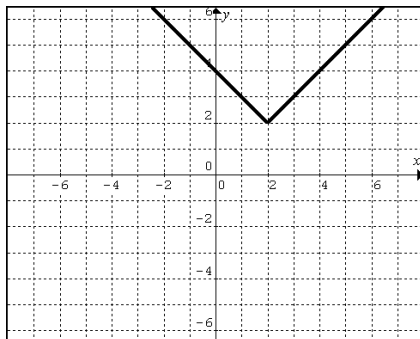
Write the equation:



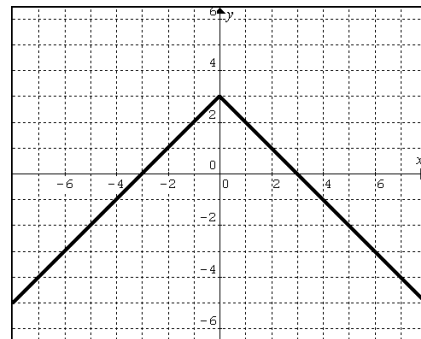
c. Describe the transformation in words:

d. Describe the transformation in words:

Write the equation:



Write the equation:



2. Graph each equation on your calculator and describe (in words) the graph as a transformation of

$$y = |x| \quad \text{or} \quad y = x^2.$$

a. $y = |x + 4|$

b. $y = (x - 2)^2 - 3$

c. $y = |x - 1| + 1$

3. Write an equation for each of these transformations.

a. Translate the graph of $y = x^2$ right 3 units.

c. Translate the graph of $y = x^2$ up 3 units.

b. Translate the graph of $y = |x|$ left 5 units.

d. Translate the graph of $y = x^2$ left 2 units and down 3 units

V. Solving Absolute Value Equations

READ MINI LESSON V BEFORE YOU COMPLETE THIS SECTION! CHECK YOUR ANSWERS TO #1 USING THE SELECTED ANSWERS AFTER THE MINI LESSONS TO MAKE SURE YOU ARE SOLVING THE EQUATIONS CORRECTLY AND COMPLETELY.

Solve each equation. Show the check of your solutions.

1. $|2x + 7| = 5$

2. $|x - 3| = -1$

3. $|x - 0.5| + 0.3 = 1$

4. $3|2x + 5| = 15$