

Chapter 1 Linear Functions Learning Menu QUIZ GRADE

Menu Goals

- Understanding the characteristics of basic parent functions
- Identify family of functions
- Describe transformations of parent functions
- Compare two different graphs
- Write functions representing different transformations
- Use linear functions to model and analyze a real-life situation
- Write equations of linear functions using points and slopes
- Use linear regression
- Determine the number of solutions of a linear system
- Visualize solutions of linear equations in three variables
- Solve systems of linear equations in three variables algebraically
- Solve real-world problems

Main Course

You must try our main course. We do not offer more to choose from because this is so good you should not pass it up. Our main course includes technology mixed with real-world application. In order to enjoy your full main course, you must create a real-world scenario, using technology of your choice, which would create a linear system of equations. Some technology options would include, but are not limited to power point, SlideRocket, a video, Google Presentation/Slides, Animoto, Canva, Creedoo, Prezi, Emaze, Go



Animate, MoveNote, SlideDog, or any others you are aware of. If you know of a different one than the list provided, please get prior approval. In your final presentation be sure to include:

- A written scenario of your situation that will create a linear system
- A picture to illustrate your written scenario
- Provide the variables
- Write the two – three linear equations
- A graph of the two - three equations (be sure to label properly)
- The work shown to solve the system using either substitution or elimination
- The solution written in coordinate form
- A written interpretation of your solution in terms of the scenario you created.

Side Dishes

For every main course ordered you can select any two sides from the list of side items offered below. Be sure to tell your server (teacher) which two sides you want so an papers needed can be provided.

- Grab a worksheet from me to complete that covers all four sections of the chapter. Work must be shown for each problem.
- Do **page 8**: 3, 5, 9, 11, 13, 17, 19, 29, 33, 35, 55; **page 16**: 3, 5, 9, 11, 13, 17, 27, 33; **page 26**: 3, 9, 11, 19, 21, 33, 38; and **page 34**: 3, 9, 11, 17, 19, 31 out of your textbook. Check the answers in the back to make sure you understand the concepts.
- Watch the seven videos below and answer the fourteen questions found on this google form. <https://goo.gl/forms/YGQftfKkPCvOlsdT2>
 - 1.1: https://www.youtube.com/watch?v=-l2QRp07_6M (2:44)
 - 1.2: <https://www.youtube.com/watch?v=B4NJFnTxiQY> (3:26)
 - 1.3: <https://www.youtube.com/watch?v=iEEGDPdXqZY> (4:22)
 - 1.4: Systems of Equations
 - Systems Basics <https://www.youtube.com/watch?v=9MPUSWUyaYU> (4:48)
 - Substitution https://www.youtube.com/watch?annotation_id=annotation_3070817305&feature=iv&src_vid=KNwwu5wjcaA&v=XTz9AnU7nLM (2:07)
 - Elimination https://www.youtube.com/watch?annotation_id=annotation_1385304503&feature=iv&src_vid=xB-oXaCoJoc&v=w3FSej2QrtU (1:50)
 - Word Problem <https://www.youtube.com/watch?v=GFjCb-vhdhM> (4:50)
- Grab a vocabulary sheet from me and define the vocabulary words and draw/provide a picture/diagram for each of the words.



Desserts Course

You never want to miss a chance to end with something sweet, and if your sweet tooth is strong you can choose more than one of the selections below. You must select at least one dessert to finish your meal.



- Create a cheat sheet to remember all the information from this chapter. Either a colorful and creative paper cheat sheet or using technology for this final product.
- Create your own worksheet with different levels of difficulty and the answer key with work and answers. Minimum of six questions per section of the chapter. Two questions should be basic, two average level of difficulty questions, and the last two questions per section should be advanced style questions. This can be handwritten (clearly enough to be legible), it can be typed using technology, or a combination of the two.
- Pick one of the four sections for Chapter 1 Linear Functions and create a video that teaches the main concepts of the section. You may use the technology options provided in the Main Course suggestions. You may do this one with up to two other people, but all must participate in the creation of the video. Email the final product to me at noblem@lasncastersd.k12.wi.us and include all the names involved to earn full credit.