PreCalculus – MATH 1110
Unit 1: Functions and Systems

Big Ideas
- Creating and reasoning with equations and inequalities
- Functions: building, transforming, and performing operations
- Functions: interpreting real-world meaning and applying

Unit Goals
- I can analyze functions and graphs of linear equations and piece-wise functions.
- I can perform algebraic operations with functions including adding, subtracting, multiplying, and composing.
- I can use algebraic properties to evaluate the difference quotient.
- I can describe the transformations of a function including and describe what makes a function odd or even.
- I understand the domain and range of a variety of functions and can determine how transformations alter domain and range.
- I can model data using technology and find a function that will most accurately represent that data.

August/PreCalculus

Mon	Tue	Wed/Thurs	Fri
		1	**2**
5	**6**	**7/8** August 10 –Teacher Report	**9**
12	**13**	**14** *Freshman Orientation* **15** First day all students Tuesday schedule Class Introduction Pretest	**16** *Tuesday schedule*
19 **1.1 Linear Functions** 1.1 note sheet: Linear functions	**20** **1.1 continued** **Parallel and Perp Eqns** HW #1	**21/21** (8-21-19 Back to school night 6-8) *1.2 note sheet* **1.2 Piecewise Functions with Quadratics** HW #2 **1.2 Function Test, Restricted Domain** *1.2 note sheet*	**23** **1.2 Difference Quotient** HW #3 Difference Quotient worksheet
26 Finish 1.1-1.2 **1.3 Rigid Transformations**	**27** *1.3 note sheet* **1.3 Step Functions, Even/Odd Functions** HW #4	**28/29** BACK TO SCHOOL NIGHT 6-8 **1.4 Non-Rigid Transformations** HW #5 *8/30 – Back to School Night*	**30** Take Home 1.1-1.3 Quiz Finish 1.4

2019

September/PreCalculus

Mon	Tue	Wed/Thurs	Fri
2 KA check *Labor Day – No School*	**3** *1.5 note sheet* **1.5 Func Composition Notation** HW #6	**4/5** *Inverses Activity* **1.6 Inverses - Horizontal Line Test, 1-1, Restricting Domain** HW #7	**6** **Start 1.7 Regression** pg77 #18 as practice/review HW #8
9 Finish 1.7 **Chapter 1 Review**	**10** **Chapter 1 Review**	**11/12** **Chapter 1 Test**	**13 Homecoming parade and assembly** **7.1 Solving Systems HW #9** Solving Systems worksheet

Chapter 1 Homework Sheet
Functions and Their Graphs

Date and Homework		Self-Assess (1-5) Questions?
Date: 8/20-21 **Section 1.1 Lines in the Plane** **HW #1** day 1 Linear Review; Linear Review part 2	**Thursday Aug. 22**	
Date: 8/22 and 8/24 **Section 1.2 Functions** **HW #2** pg24 #1-6, 7-21odd, 29-43odd, 49-53odd, 65, 67, 69, 81-83all	**Monday Aug. 26**	
Date: 8/25 **Section 1.2 continued** **HW #3** Difference Quotient worksheet	**Friday Aug. 30**	
Date: 8/28-29 **Section 1.3 Graphs of Functions** **HW #4** pg37 #1-6, 7-15 odd, 19-41odd, 55-61odd, 73-85odd, 91, 95, 99-104 all, 110	**Tuesday Sept. 3**	
Date: 8/30-31 **Section 1.4 Shifting, Reflecting, and Stretching Graphs** **HW #5** pg47 #1-4, 5-15odd, 23-33 odd 73, 75, 81-83odd	**Tuesday Sept. 3**	
Date: 9/5 **Section 1.5 Combinations of Functions** **HW #6** pg56 #1-6, 11-25odd, 37-49odd, 55-59, 67-70, 85, 86, 98	**Friday Sept. 6**	
Date: 9/6-7 **Section 1.6 Inverse Functions** **HW #7** pg67 #1-6, 15-18, 25-31 odd, 35-49odd, 71-79 odd, 93-99odd, 115, 130	**Monday Sept. 9**	
Date: 9/8 **Section 1.7 Linear Models and Scatter Plots** **HW #8** pg76 #1-4, 7-10 all, 13, 17-25 odd	**Thursday Sept. 12**	
Date: 9/11-12 **Chapter 1 Review**	**Thursday Sept. 12**	
Date: 9/13-14 **Chapter 1 Test**	**Thursday Sept. 12**	

After each homework assignment:

- Give yourself a score from 1 to 5. A score of 1 represents an assignment that was so difficult that even after you tried and sought help, you were still unable to complete it. A score of 5 represents an assignment you were so proficient on that not only did you complete it, you would be able to help a classmate if they had questions.
- Write down any problems from the assignment you struggled with, got extra help on, or didn't complete because you don't know how to do them.

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