Learning Works Charter School

Algebra 1A
Module 4

Student Name: _____ Teacher Name: _____

As you work through the chapters in your Algebra 1 course, you will be encouraged to think and to make conjectures while you persevere through challenging problems and exercises. You will make errors – and that's okay! Learning and understanding occur when you make errors and push through mental roadblocks to comprehend and solve new and challenging problems.

Text: *Algebra 1 Common Core,* Big Ideas, 2015

To ensure you are learning, you must show your work for all exercises.
YOU WILL NOT EARN CREDIT FOR ANSWERS WITHOUT WORK.

Chapter 4: Writing Linear Functions (4.1-4.4, 4.6)

_____ Maintaining Mathematical Proficiency (page 163): Complete exercises #1-10 **all**

_____ 4.1 Writing Equations in Slope-Intercept Form: Read the lesson and complete exercises #3, 4, 5, 7, 8, 9, 10, 13, 14, 15, 19, 20, 27, 38, 39, 40

_____ 4.2 Writing Equations in Point-Slope Form: Read the lesson and complete exercises #1-10 **all**, 15, 16, 17, 21, 22, 32, 41, 42, 43, 44

_____ 4.3 Writing Equations of Parallel and Perpendicular Lines: Read the lesson and complete exercises #1, 2, 3, 4, 9, 10, 19, 20, 25, 26

_____ 4.4 Scatter Plots and Lines of Fit: Read the lesson and complete exercises #3-7 **all**, 9, 10, 12, 25, 26, 27

_____ 4.6 Arithmetic Sequences: Read the lesson and complete exercises #1, 3, 4, 5, 6, 11, 12, 13, 17, 18, 19, 31, 33, 36, 39, 43

_____ 4.7 Piecewise Functions: Read the lesson and complete exercises #3-8 **all**, 13, 23, 24, 31, 57, 59

Students must complete the Chapter Review and Project with a teacher or tutor at school.

_____ Chapter Review (pages 208-210): Complete exercises #1-29 **all**

_____ Complete the attached Project **(No project = No credit)**

A teacher or tutor reviewed the Chapter Review and Project with the student.

Date: _____ Signature: _____

Grade

Continued on next page

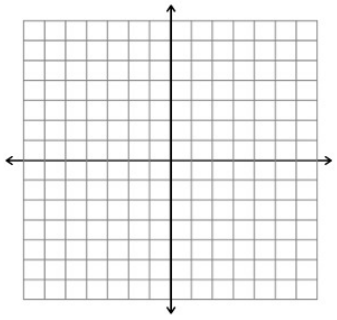
Algebra 1 Project
Module 4: Writing Linear Functions
Textbook Pages: 173-230

Any Beginning

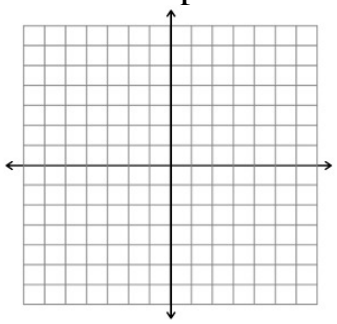
With so many ways to represent a linear relationship, where do you start? Use what you know to move between equations, graphs, tables and contexts.

Each cell of the matrix contains a different format for the same problem. For each problem, start with the given information and fill in the rest of the chart. Each time, you will start in a different place.

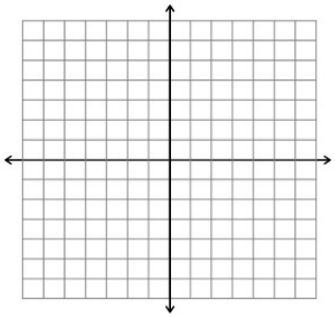
1. **Table: (4, 4), (8, 5), (-4, 2)**

Situation	**Table**	**Slope-Intercept Form**
An international call requires $3 to connect and $0.25 for each additional minute.	**X** | **Y**	
Graph	**Standard Form**	**Points in Functional Notation**
		
Point-Slope Form	**Equation of a Parallel Line**	**Equation of a Perpendicular Line**

2. **Situation: The photography studio charges an initial fee of $35 and $5 for each picture.**

Situation	**Table** **X** | **Y**	**Slope-Intercept Form**
Graph 	**Standard Form**	**Points in Functional Notation**
Point-Slope Form	**Equation of a Parallel Line**	**Equation of a Perpendicular Line**

3. **Standard form: 4x – y = -3**

Situation	**Table** **X** | **Y**	**Slope-Intercept Form**
Graph 	**Standard Form**	**Points in Functional Notation**
Point-Slope Form	**Equation of a Parallel Line**	**Equation of a Perpendicular Line**