Detailed Schedule

	Due Date	Development Plan	Test and Demonstration Plan

Jan	**30**	• Draft Webpages
		  ○ Navbar, Home Page
		  ○ Lesson Page
		  ○ Manipulator Page
		  ○ Creator Page
		  ○ Explore Page
		  ○ About/Contact us Page
		  ○ User Profile Page
			• The user will be able to navigate through prototypes of the major pages of the website

Feb	**6**	• Continue making draft webpages
		  ○ Account Creation Page
		  ○ Login Page (Modal?)
		  ○ Expression Tree Data Representation
		• Define data layout/class hierarchy
		• Expression Tree Rendering
		• Server
		  ○ Rules for setting up/running
		  ○ Working server that serves website files on localhost
		• Algebraic Action handling
		  ○ Specify all the kinds of algebraic actions
			• The user will be able to view a prototyped rendered expression tree in the manipulation window
			• Documentation will be written which defines the algebraic actions and their meanings. Initial implementations of these objects will be created.
			• User will be able to navigate the created pages of the website sent by a server on localhost

	13	• Expression Tree Rendering
		• Define data layout/class hierarchy
		• Algebraic Action handling
		• Expression Tree User Interaction
		• Expression Manipulator Page/UI
		• Server
		  ○ Error Handling
		  ○ Research and handling of security issues
			• Basic algebraic actions will be implemented, and unit tests will be written which test applying the actions to expression trees.
			• JSON serialization/deserialization will be implemented on expression trees.
			• Some user interaction will be supported for manipulating expression trees.

	20	• Server ○ Set-up series of dummy files for website to use • Algebraic Action handling • Expression Tree User Interaction • Expression Manipulator Page/UI	• Expression trees will be more manipulatable • More algebraic actions will be implemented • Users can manipulate pre-made Expression Trees •

	27	• Algebraic Action handling
		• Expression Tree User Interaction
		• Expression Manipulator Page/UI
		• Database
		  ○ Define Schema
		  ○ Rules for setting up
		• Set up AI
		  ○ Determining Heuristic
		  ○ Skeleton search function
			• Expression trees will have all the basic algebraic actions implemented via the UI.
			• All algebraic actions will be implemented and integrated into the manipulation page. Finished unit tests written.
			• Unit tests for AI Solver will be implemented

Mar	**Break**	yay	yay

	13	• Set up AI
		  ○ Work on Search function
		• Problem Generator
		• Log-in System
		• User Accounts
		• History Implementation
		• Use JS to put DB data on web pages
		• Database
		  ○ Database wrapper class
		  ○ Storage Handling
			• Initial implementation of History bar will be done.
			• Some user-created problems/lessons can be sent from the server/database to the website.
			• Initial User Account system will be done
			• Unit tests for Problem Generator implemented
			• Unit tests for Database adding and reading files will be implemented

	20	• Database
		  ○ Delete Handling
		• Set up AI
		  ○ Work on search function
		• Problem Generator
		• Log-in System
		  ○ Google Sign-In implementation
		• User Accounts
		  ○ Bare bones implementation
		• History Implementation
		• Use JS to put DB data on web pages
		• Expression Creator Page/UI
			• History bar will be implemented and integrated into manipulator page
			• The website will display user-created problems and lessons which it gets from the server/database
			• Initial implementation of expression creation page will be done.
			• Users can login with Google
			• Users can make problems of varying difficulty.
			• Preliminary AI will be implemented

	27	• Set up AI
		  ○ Work on search function
		• Problem Generator
		• Log-in System
		  ○ Connect to database
		• User Accounts
		  ○ Implementation of website and database-facing features
		• Use JS to put DB data on web pages
		• Expression Creator Page/UI
			• Users can choose a difficulty when using the Problem Generator
			• Users can view stored data associated with their account
			• AI search capabilities will be improved

Apr	**3**	• Expression Creator Page/UI
		• Tutorials
		  ○ Implementation
		• Spiffy up webpage design (CSS)
		• Finalize Website design
		• Set up AI
		  ○ Complete Search function
		• Deployment
		  ○ Research options
			• Expression creation page will be done.
			• Initial Tutorial pages will be done
			• AI search capabilities will be improved
			• Web page design will be updated

	10	• Tutorials ○ Design of Content	• User can ask for help on the manipulation page and receive an answer • AI will be finalized

		● Spiffy up webpage design (CSS) ● Finalize Website design ● Work on AI ○ Testing/Training ● Deployment ○ Set up	● Web page design will be updated ● Preliminary tutorials will be completed
	17	● Tutorials ○ Testing and Review ● Spiffy up webpage design (CSS) ● Finalize Website design ● Deployment ○ Testing	● Users can use the tutorial system ● Website is deployed and viewable
	24	● Tutorials ● Spiffy up webpage design (CSS) ● Finalize Website design ● Deployment ○ Bug fixes	● Web page design will be finalized ● Website is finalized