

# Algebra Intelligence Project Specifications

Authors:

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## **Project Title**

Algebra Intelligence

## **Project Summary:**

Algebra Intelligence is a web based learning tool designed to help students with Algebra. The website will randomly generate multiple choice questions based on various question templates stored in a database. Each of these templates falls under a different category. The difficulty of these questions is determined by the user's skill level in the templates category. Upon completion of the quiz, users will be redirected to another website for additional aid and practice.

## **Project Goals**

The main objective of Algebra Intelligence is to educate Algebra students by determining their strengths and weaknesses in the many topics of the subject. When weaknesses are identified, Algebra Intelligence will offer additional help to students by redirecting them to external sources when assessment is complete.

## **Product Features**

Algebra Intelligence will have a user account system that keeps track of skill levels in each algebra topic. The system will, as best as possible, allow the specification of question templates and solution algorithms in a general manner. Each template has certain components that are filled in randomly, with constraints, based on the user's skill level. Upon completion of the quiz, the students will receive a report of their strengths and weaknesses. Based on this report, the student will be offered additional sources for extra practice and lessons based on their algebraic weakness.

## **Any Limitations**

Algebra Intelligence tests a student's knowledge through testing, it does not provide lessons. The website is designed for those transitioning from middle

school to high school level math. The site is being designed for desktop use and may not operate as intended on mobile devices.