

Figure 1 main menu

MQ Algebra

An educational app that may replace the math textbook.

The main menu will display a list of introduction to Algebra topics (see figure 1). The app, for now, will cover basic concepts such as simplification, factorization, and equations.

When the student selects a topic it will generate a random question (see figure 2). The student can tap the screen and a multiple choice of 4 answers will appear.

If the user swipes up, it will show the next step involved in solving the question. An explanation will be at the bottom of the screen, to explain exactly what happened (see figure 3). If the user double taps, a floating view will show a more in-depth explanation with a link to a YouTube video or a forum where students can post questions.

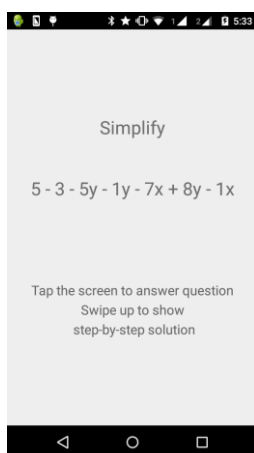


Figure 2 generate random question

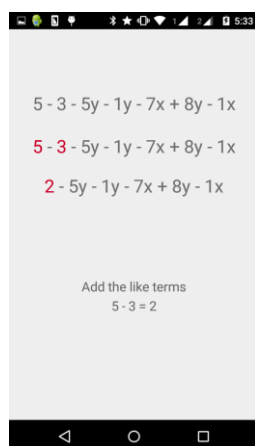


Figure 3 user swipes up

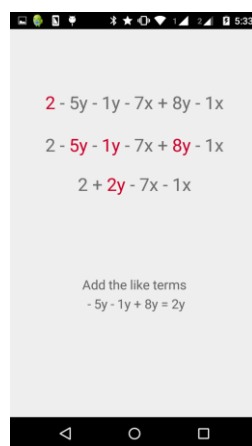


Figure 4 swipes up again

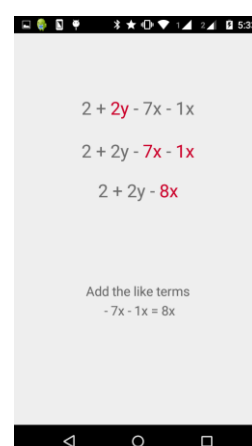


Figure 5 swipes up again

Since the App is able to solve random questions, it will also have a function where students can input specific questions and see each step in solving it.

When the question is solved it will show “solved” with the next line stating “Swipe left for another question”. The user may swipes left as many time as they want and a new random generated question will appear. The student may also swipe right to go to the previous question, and swipe down to see the previous step.

Video of an unfinished prototype, not all functions above are included.

<https://www.youtube.com/watch?v=bnWrgL-4loQ&feature=youtu.be>