**Numera**

**Numera** is a cutting-edge, AI powered, math learning environment. The days of falling asleep while an instructor drones on about prime factors are over. **Numera** replaces the traditional, antiquated mode of instruction with a new *human-centered* paradigm.

It takes the form of a powerful web application - all you need in order to get started is a free account and an internet connection. **Numera** is designed to supplant current math lectures - it can be synced up for classrooms and allow a teacher to monitor their students’ progress. It’s content covers a wide range of mathematics, from middle-school pre-algebra to university concepts like linear algebra, differential equations, and real analysis.

Instead of wholesale, stiff lectures, this new learning environment is dynamic and engaging. **Numera** uses powerful AI systems to craft personalized video lessons and incorporates student feedback to tailor it's short videos to maximize understanding and create genuine curiosity.

Rather than stressing memorization and unmotivated formulas, **Numera**’s adaptive software seeks to align learning with the natural human tendencies to explore and be curious. AI recommendations are used to show examples that align with a students interests, whether it be applications in physics or political science or sports.

**Numera**’s individually-paced design allows teachers to spend their time more effectively, aiding the few students who need personal help while allowing more advanced students to explore and advance further.
**Numera** uses student data to create personalized practice problems that are the perfect level of difficulty, challenging yet attainable for students. It also tracks response rates and results in yet another AI system to model the student’s level of understanding. Using this model, it can utilize the most effective learning techniques, like spaced-repetition and active recall to further the student’s learning and retention.

Perhaps most important, however, is how **Numera** changes the incentive to learn math. By aligning learning with basic elements of human flourishing, **Numera** seeks to make learning an end-in-itself. Instead of raising resentment or fatigue, **Numera** strives to create curiosity, wonder, and joy.

**Numera** will be structured as a non-profit, sold on two levels as a subscription service: to school districts and individual consumers. **Numera** for low-income and traditionally underserved areas will be funded by education-focused philanthropic foundations.

**Numera** is simple and easy to use. Just follow these steps to get started:

1) Log in with your google account

2) The homepage of **Numera** is styled after a world map of an adventure game. Concepts are linked together in landscape, with a fog covering unexplored areas. Select the “Get Started” button.

3) A quick review lesson will come up for you to complete, with topics selected from an AI recommender based on what things you are most likely to need to review and the things that will be most useful for the coming lesson.

4) Jump into the lesson! Each lesson consists of short, unique, curated videos based on your learning and experience profile, with conceptual questions after, and a few motivating examples and practice problems.

5) If you ever need a break, you can check your profile, which has detailed statistics on your usage, but also insights from AI systems about your learning style, problem areas, and types of videos and concepts that engage you particularly well.