Two types of Quantum.

- Wave mechanics approach
- Matrix mechanics approach

They were proven mathematically equivalent later. It was thought that representing quantum as waves was ”closer” to the old knowledge.

Quantum is entirely deterministic, but its propegating through an infinite dimension space.

”The thing that quantum mechanics is about, is going to be this finite-dimential vector with complex values.”

- It will obey Matrix propegation rules
- Rotations, etc. are transformed, and rules are applied to propegate them
- The results have nothing to do with the real space

Without linear algebra, quantum could be done. However, linear algebra is a tool that enabled the computational methods to messing with data.

Progression of mathematics

1. Geometric (math used to deal with shapes)
2. Algebraic (math now deals with letters and abstractions)
3. Algorithmic (math is transitioning to dealing with Algorithms)

Linear Algebra is a question about *information*. The class teaches you info about dealing with logic, etc.
