Rough Math History Timeline

Egypt (3000 BCE) - Basically "elementary school" math, some linear equations.

Mesopotamia [Babylon] (2000 BCE) - Modern day Iraq. Similar level to Egyptians, plus knowledge of the quadratic formula.

Greece (600 BCE - 600 CE) - includes Roman Empire, Alexandria in Egypt. Logical, proof-based approach to mathematics.

- Pythagoras (~500 BCE) best known for eponymous theorem
- Plato/Aristotle (~400 BCE) Plato describes ideal forms -- these are studied via mathematics. His student, Aristotle, lays down the rules of logic and logical inference. Begins philosophical study of the infinite.
- Euclid (~300 BCE) Applies Aristotle's notions of logic, axioms, postulates, and so on to Geometry. Produces, the *Elements*. Geometry still learned today along the general lines of Euclid.
- Archimedes (~250 BCE) inventor, practical mathematician. Gives a method to approximate pi to any desired accuracy. In contrast to Euclid who simply proves that pi exists. Forefather of integral calculus; can compute areas inside parabolic segments.
- **Apollonius (~200 BCE)** Forefather of the differential calculus. Computes tangents and more for the conic sections (ellipse, parabola, hyperbola).
- Ptolemy (~100 CE) Produces astronomy textbook that remains the standard for 1400 years.
- **Diophantus (~250 CE)** Studies algebraic equations; tries to introduce more symbolism to mathematics.

Greek mathematics disappears in the 5th century, to be preserved by the Islamic mathematicians and later reintroduced into Europe.

India (600 BCE - 1600 CE) - roots of our modern number system. Developed trigonometry in terms of the sine function.

China (~200 BCE - 1500 CE) - Perhaps mathematical culture is much older, but evidence destroyed in the book burnings at the beginning of the Han dynasty. Chinese mathematics becomes westernized with the arrival of Catholic missionary Matteo Ricci. Only civilization before the modern period to make substantial use of negative numbers.

Islam (~600 CE - 1300 CE) - mathematical tradition of Arabia and Persia. Islamic caliphs were patrons of science. Preserved and developed Greek mathematics, which returns to Europe with the Moors in their conquest of parts of Spain.

Medieval Europe (600 CE- 1500 CE) - Little going on until 11th century, when translations into Latin from Arabic begin of ancient Greek texts preserved by the Muslims. Europe relearns its math.

Renaissance (1500-1600 CE) - New developments in math in Europe. Some even motivated by art (theory of perspective).

Modern (1600 CE - 1900 CE) - With introduction of coordinates by Descartes and Fermat, analytic geometry and calculus begin to develop. Followed by an interest in structure in the 19th century.

Post-modern (1900 - 1950 CE) - Mathematics turns inwards and studies its own foundations. New disciplines develop rapidly.

Post-historical (1950-present) - New mathematics becomes too specialized to have general interest. Fame is won not by solving new problems, but old ones. No single mathematician knows the whole mathematical corpus anymore.