

What is Mathematics?

A Brief History of Maths

by

Jorge García

<http://www.nemediano.com.mx>

A brief history of Maths

1. Introduction.
2. Ancient Mathematics.
3. The Greek period.
4. Renaissance.
5. Modern Maths.
6. Conclusions.

A brief History of Maths

Ancient Mathematics.

Ancient Mathematics

- Mesopotamia.
 - Multiplication tables.
 - Linear equations, quadratic equations.
 - Base 60 numeral system.
- Egypt
 - Base 10 numeral system.
 - Build the pyramids

What is Mathematics?

- Mathematics were the study of the **number**.
 - And how to use it to solve problems.
 - Measuring lands.
 - Coinage exchange.
 - Construction.

A brief History of Maths

The Greek period.

The Greek period.

- Thales. (624 – 546 BC).
 - The Thales Theorem.
- Pythagoras.
 - The Pythagorean Theorem.
- Euclid
 - *The Elements*.

The Greek period.

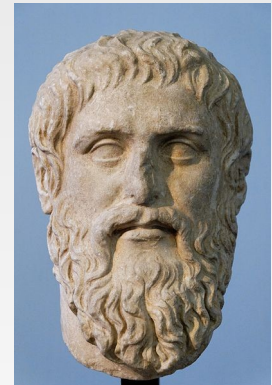
- A lot of great mathematicians.
 - Plato.
 - Aristotle.
 - Euclid.
 - Eudoxus.
 - Pythagoras
 - Thales
 - Archimedes.

The Greek period.

Ἀγεωμέτρητος μηδεὶς εἰσίτω

(Let none unversed in geometry enter here)

- An inscription on the door of Plato Academy.



What is Mathematics?

- Mathematics were the study of the number and the **form**.
 - And a way of live.

A brief History of Maths

Renaissance

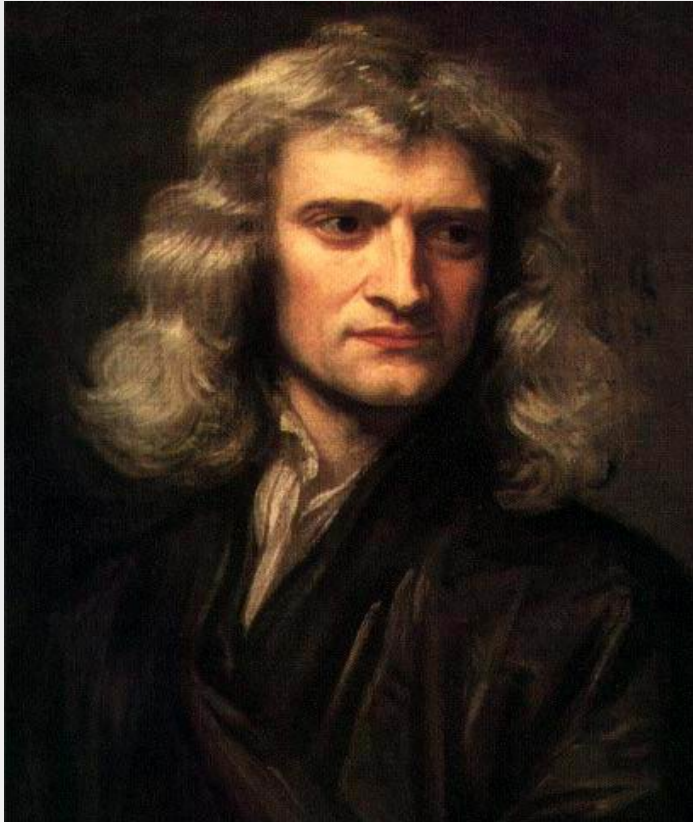
Renaissance

- Mathematics and logic.
 - Rene Descartes.
 - Tycho Brahen.
 - Johannes Kepler.
 - John Napier.
 - Gallileo.
 - Pierre Fermat.
 - Blaise Pascal.

Renaissance

- Ada Augusta.
- The Bernoulli brothers.
- Leonard Euler.
- Lagrange.
- Laplace.
- Carl Frederick Gauss.
- Evariste the Galois.
- Augustin Louis Cauchy.

Renaissance



Newton

V. S.



Leibniz

Renaissance

*It is impossible to be a mathematician without
being a poet in soul.*

Sophia Kovalevskaya.

What is Mathematics?

- Mathematics were the study of the number, the form, the **movement**, the **change**, the **space**.

A brief History of Maths

Modern Maths.

Modern Maths.

- The logic and the formalism.
- *The Principles of Mathematics* by Bertrand Russell.
- The Incompleteness Theorem by Kurt Gödel.
- Hilbert's problems.
- Srinivasa Aiyangar Ramanujan.

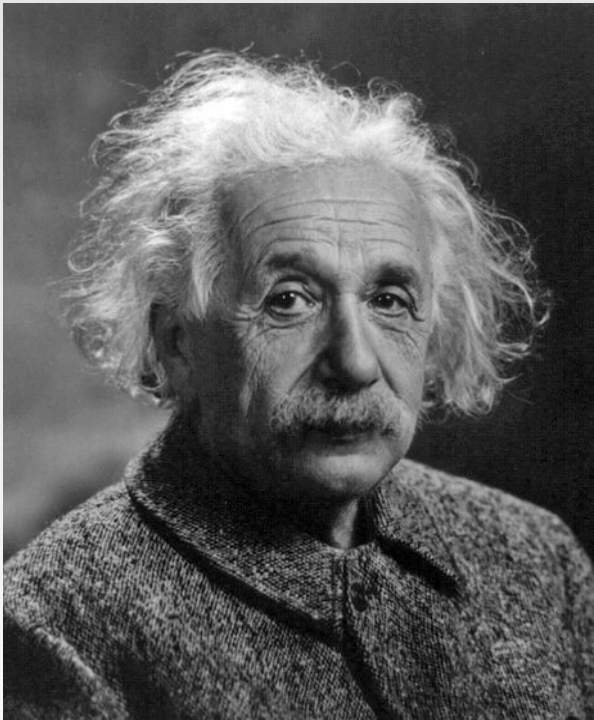
Modern Maths

- Alan Turing.
- Alonzo Church.
- Paul Dirac.
- Nicolas Burbaki.
- Paul Erdos.

Modern Maths

Do not worry about your difficulties in Mathematics. I can assure you mine are still greater.

Albert Einstein.



What is Mathematics?

- Mathematics are the science that studies:
 - The number
 - The form.
 - The change.
 - The movement.
 - The space.
 - And the **mathematics** themselves.

A brief History of Maths

Conclusion.

Conclusion.

*Half of the mathematicians that had born thought
the history live today.*

Concepción Ruiz and Sergio Regules

What is Mathematics?

Mathematics are the science of the **patterns**.

- Numeric Patterns.
- Patterns in the form.
- Patterns of movement.
- Patterns of change.
- Pattern in the behavior.
- Real patterns.
- Imaginary patterns.
- Static patterns
- Dynamic patterns
- Qualitative patterns.
- Quantitative patterns.
- Patterns that emerge in the world around us.
- Patterns in our imagination.
- Patterns of all kind.

Brief history of mathematics.

Thank you.

www.nemediano.com.mx