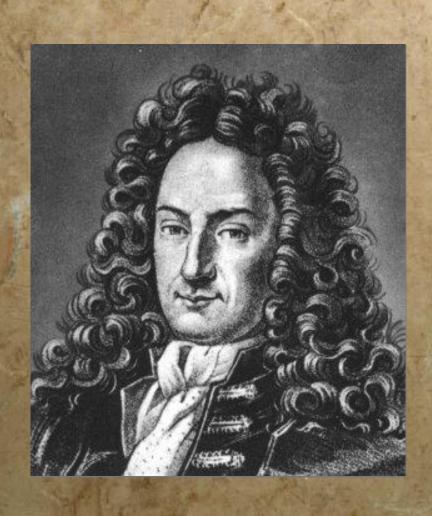# Gottfreid Leibniz

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Inventor of Calculus

Rachael, Devan, Kristen, Taylor, Holly, Jolyn, Natalie, Michael, & Tanner

Who invented Calculus?

☞Gottfreid Leibniz

When did he invent Calculus?

☞ 1646-1716

Why he is the inventor of Calculus:

- ✓ He published* his works with calculus, "Acta Eruditorum" before Newton did.

  *see timeline

- ✓ The Calculus taught today is mainly based of Leibniz's notations and works.

- ✓ If Leibniz is being accused of plagiarism through the letters written between Newton and him, then Newton needs to be accused as well.

- ✓ Leibniz's work was always constant and meticulous; Newton's work was always random and scattered.

- ✓ Leibniz's work and handwriting is in Newton's book for everyone to see.

Why he is the inventor of Calculus (con't):

- ✓ He developed Higher Order Derivatives and we studied them, so therefore they are important.
- ✓ Leibniz approached Calculus geometrically and Newton approached it through physics.
- ✓ Once Newton died, his inventor of Calculus title was revoked, so not everyone thought he deserved the title and he didn't.
- ✓ He developed an early calculating machine and we use calculators every day in Calculus class.
- ✓ He was a part of the Royal Society like Newton.

Why Newton isn't the inventor of Calculus:

- Newton's works weren't read until after he died.
- Newton needed other findings like Descartes' to even come up with Calculus.
- There is no proof that Newton was actually working before Leibniz because he never published anything until after Leibniz.
- If he was on to something new, he should have told everyone.
- Newton focused mainly on physics.
- Newton not doing his own work has sparked another controversy of whether or not he stole the Laws of Gravity from Galileo.

Why Seki isn't the inventor of Calculus:

- Very modest and quiet. Because he was Japanese he couldn't communicate his ideas with the rest of the world.
- Seki isn't even in our Calculus textbook.
- Seki's book deals mainly with just mathematical problems.
- He was raised to be a samurai warrior.
- Seki focused on determinants and magic squares.
- He did a lot of things that he considered Calculus, but by today's standards wouldn't be considered Calculus.

A timeline of important dates in Leibniz's discoveries.

1646: Birth.

1661: Enters the University of Leipzig.

1666: Publishes *The Dissertatio de Arte Combinatoria* before he really dives into Mathematics.

1672: Is taught some of the newer Mathematics by Christian Huygens.

1673: Takes up a serious study of Mathematics and visits the Royal Society in London.

1675: Leibniz discovers the fundamental principles of Infinitesimal Calculus.

1676: Recognizes the importance of the Binary System of Notation.

1677: Publishes *The Method of Mathematics*.

1684: Publishes *Acta Eruditorum*.

1686: Modern theory of algorithms develops because of Leibiniz's works.

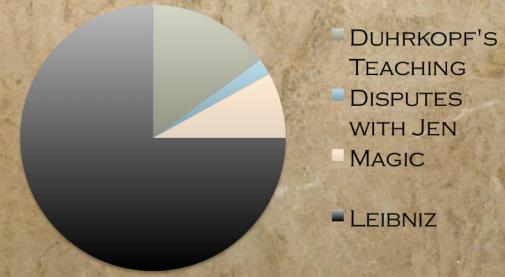1687: Newton publishes *Principia Mathematica*.

1716: Death. Leaves behind a legacy of work in logic, physics, philosophy, religious dogma, and planetary motion.

We shall conclude our thoughts now.

- ✓ Leibniz is the inventor of Calculus because he published his works first, approached Calculus from a different angle, and his Calculus is still taught today. And Leibniz is the smartest librarian you will ever meet. Thank you, that is all.

COMPONENTS OF CALCULUS

- Duhrkopf's Teaching
- Disputes with Jen
- Magic
- Leibniz

THE TRUE INVENTOR OF CALCULUS.

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