



Leibniz

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Why Leibniz

- Leibniz' notation is used today.
- Found that dy/dx is the derivative.
- Future mathematicians based their work on Leibniz' work.
- Published in 1684, three years prior to Newton.
- There is no proof that Leibniz saw Newton's manuscript before it was published.

Why Leibniz cont.

- Invented algorithmic procedures for differential calculus.
- Explained both differentiation and integration
- Discovered Calculus in Paris, no where near Newton, before the letters even started.
- Leibniz's work was always constant and meticulous, while Newton's was random and scattered.
- Was not found guilty of plagiarism.

Why not Newton

- Newton based his ideas off of Galileo, Kepler, and Descartes.
- Did not publish until after Newton.
- Did not have any notation.
- Learned about differential calculus from Leibniz.
- Kept ideas to himself.

Why not Newton cont.

- Newton primarily worked with fluxions.
- Newton never debated the invention of calculus until AFTER he published his own work.
- He focused mainly on physics work instead of mathematician.
- Leibniz' handwriting can be found in Newton's book.
- Newton's calculus was not as complete as Leibniz'.

Timeline

1675- Leibniz invents the modern notation for integration & figures out the product rule

1676- Newton sends letters to Leibniz

1684- Leibniz published work
Newton starts work on Principia

Timeline

1686- Leibniz publishes again

1687- Newton publishes for the first time

1716- Leibniz dies in the middle of the battle

Contributions

- We use his notations
- We use dy/dx to find tangent
- We use his algorithmic procedures when differentiating equations.
- The calculus used today is related closest to Leibniz'.

Sources

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