"Si he llegado a ver más lejos que otros, es porque me subí a hombros de gigantes"
.

Retrato de Newton

Cuaderno de notas del joven Newton

Verano de 1665. Una terrible peste asola la región de Londres. En unos pocos meses el número de muertos asciende a 70.000 .

Los londinenses y los habitantes de los alrededores huyen utilizando cualquier medio.

La Peste de 1665

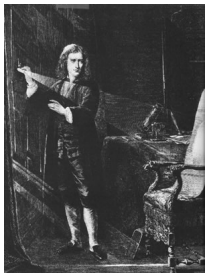
La Universidad de Cambribge se ve obligada a cerrar sus aulas y a enviar a estudiantes y profesores a sus casas.

Uno de estos estudiantes es un joven de 22 años, Isaac Newton que va a pasar en su pueblo natal Woolsthorpe dos años de vacaciones forzosas.

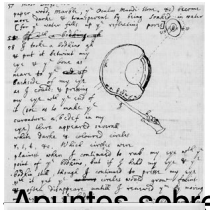
Las vacaciones más fructíferas de la historia de la ciencia.

A lo largo de estos meses Newton va a concebir, experimentar y desarrollar sus geniales ideas sobre la naturaleza de la luz, sobre la gravitación universal y sobre el método de las fluxiones.

A principios de 1666 valiéndose de un prisma como éste, y un agujero en la contraventana de su habitación va a demostrar que la luz del sol es una mezcla de luces de los colores del espectro.



La naturaleza de la luz



Apuntes sobre la Naturaleza de la luz

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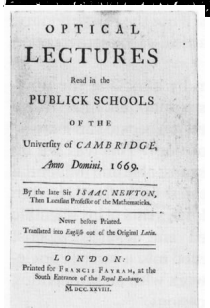


OPTICAL
LECTURES
Read in the
PUBLICK SCHOOLS
OF THE
University of CAMBRIDGE,
Anno Domini, 1669.

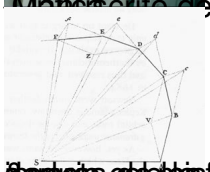
By the late Sir ISAAC NEWTON,
Then Lucasian Professor of the Mathematicks.

Never before Printed.
Translated into *English* out of the Original *Latin*.

LONDON:
Printed for FRANCIS FAYRAM, at the
South Entrance of the *Royal Exchange*,
MDCC.XXVIII.

Óptica 1704

Óptica escrito de De Motu Corporum



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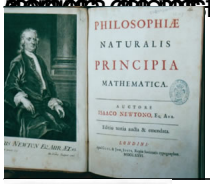
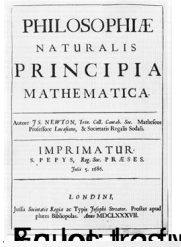


PHILOSOPHIÆ
NATURALIS
PRINCIPIA
MATHEMATICA.

AUCTORE
ISAACO NEWTONO, Eq. Aur.

Editio tertia aucta & emendata.

LONDINI,



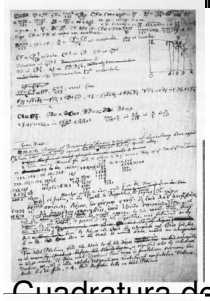
PHILOSOPHIÆ
NATURALIS
PRINCIPIA
MATHEMATICA.

Autore J. S. NEWTON, Trin. Coll. Cantab. Soc. Matheseos Professore Lucasiano, & Societatis Regalis Sodali.

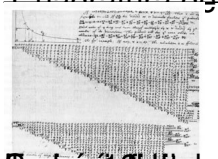
IMPRIMATUR.
S. PEPYS, Reg. Soc. PRÆSES.
Jul. 5. 1686.

LONDINI,
Jussu Societatis Regiæ ac Typis Josephi Streater. Prostat apud plures Bibliopolas. Anno MDCLXXXVII.

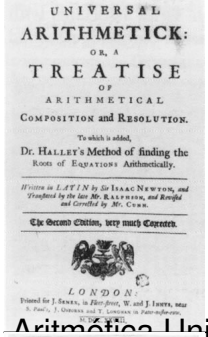
Publicó los Principia [illegible] Nos es precisamente sólo la clave de la gravitación universal sino las if



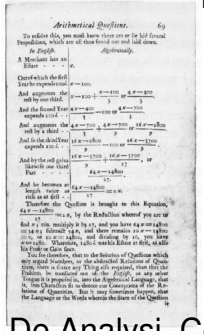
Cuadratura de las curvas



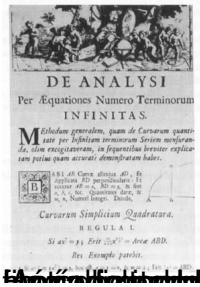
[illegible] Wolf Thorpe, Matemático, lo que más tarde se


UNIVERSAL
ARITHMETICK:
OR, A
TREATISE
OF
ARITHMETICAL
COMPOSITION and RESOLUTION.
To which is added,
Dr. HALLEY's Method of finding the
Roots of EQUATIONS Arithmetically.
Written in LATIN by Sir ISAAC NEWTON, and
Translated by the late Mr. RALPHSON, and Revised
and Corrected by Mr. CUNN.
The Second Edition, very much Corrected.
LONDON:
Printed for J. SENEX, in Fleet-street, W. and J. IRWIN, near
S. Paul's, J. OSBORN and T. LONGMAN in Pater-noster-row.

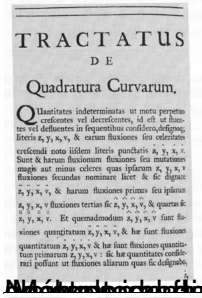
Aritmética Universal. 1707. Escrita entre 1673-1683


Arithmetical Questions. 69
To resolve this, you must know there are or be bid several Propositions, which are all thus found out and laid down.
In English. Algebraically.
A Merchant has an Estate - - - x.
Out of which the first Year he expends $100 \ldots x - 100$.
And augments the rest by one third - $\frac{x-100}{3} + \frac{x-100}{3} \text{ or } \frac{4x-400}{3}$.
And the second Year expends $100 \ldots \frac{4x-400}{3} - 100 \text{ or } \frac{4x-700}{3}$.
And augments the rest by a third - $\frac{4x-700}{3} + \frac{4x-700}{9} \text{ or } \frac{16x-2800}{9}$.
And so the third Year expends $100 \ldots \frac{16x-2800}{9} - 100 \text{ or } \frac{16x-3700}{9}$.
And by the third Part - $\frac{16x-3700}{9} + \frac{16x-3700}{27}$, or $\frac{64x-14800}{27}$.
And he becomes at length twice as rich as at first - $\frac{64x-14800}{27} = 2x$.
Therefore the Question is brought to this Equation, $\frac{64x-14800}{27} = 2x$, by the Reduction whereof you are to find x 100, multiply it by 27, and you have $64x = 14800 = 54x$; subtract $54x$, and there remains $10x = 14800$; or $10x = 14800$, and dividing by 10, you have $x = 1480$. Wherefore, $1480 \times$ was his Estate at first, as also his Part or Gain first.
You see therefore, that to the Solution of Questions which may regard Numbers, or the abstracted Relations of Quantities, there is a Part of Thing, or the Equation, that this Division is mentioned in the Fifth Lesson, or any other Tongue it is proposed in, into the Algebraical Language, that is, into Characters to denote our Conceptions of the Relations of Quantities. But it may sometimes happen, that the Language or the Words wherein the State of the Question

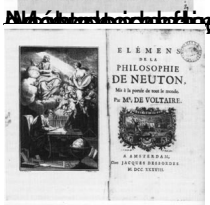
De Analysi. Contiene el Método de Newton para el cálculo de soluciones aproximadas


DE ANALYSI
Per Æquationes Numero Terminorum
INFINITAS.
Methodum generalem, quam de Curvarum quantitate per Infinitam terminorum Seriem mensuranda, olim excogitaveram, in sequentibus breviter explicatam potius quam accurati demonstratam habes.
Curvarum Simplicium Quadratura.
REGULA I.
Si $ax^{\frac{1}{2}} = y$, Erit $\frac{2}{3}x^{\frac{3}{2}} = \text{Area } ABD$.
Res Exemplo patebit.

[illegible]


TRACTATUS
DE
Quadratura Curvarum.
Quantitates indeterminatas ut motu perpetuo crescentes vel decrescentes, id est ut fluentes vel defluentes in sequentibus considero, designoq; literis z, y, x, v, & earum fluxiones seu celeritates crescendi noto iisdem literis punctatis $\dot{z}, \dot{y}, \dot{x}, \dot{v}$. Sunt & harum fluxionum fluxiones seu mutationes magis aut minus celeres quas ipsarum z, y, x, v fluxiones secundas nominare licet & sic dignare $\ddot{z}, \ddot{y}, \ddot{x}, \ddot{v}$, & harum fluxiones primas seu ipsarum z, y, x, v fluxiones tertias sic $\dddot{z}, \dddot{y}, \dddot{x}, \dddot{v}$, & quartas sic $\ddddot{z}, \ddddot{y}, \ddddot{x}, \ddddot{v}$. Et quemadmodum $\dot{z}, \dot{y}, \dot{x}, \dot{v}$ sunt fluxiones quantitatum z, y, x, v, & hæ sunt fluxiones quantitatum $\dot{z}, \dot{y}, \dot{x}, \dot{v}$ & hæ sunt fluxiones quantitatum primarum z, y, x, v: sic hæ quantitates considerari possunt ut fluxiones aliarum quas sic designabo,

[illegible]


ELÉMENS
DE LA
PHILOSOPHIE
DE NEUTON.
Mis à la portée de tout le monde.
Par Mr. DE VOLTAIRE.
A AMSTERDAM,
Chez JACQUES DESBORDES.
M DCC XXXVIII.

Alegoría de Newton de Blake

El Trinity en la época de Newton