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1

**Adams (George)** A TREATISE DESCRIBING THE CONSTRUCTION, AND EXPLAINING THE USE, OF NEW CELESTIAL AND TERRESTRIAL GLOBES, FIRST EDITION, 3 engraved plates, light offsetting, contemporary calf, chip to head of spine, new endpapers, [Tomash & Williams A7], 8vo, for the Author, 1766.

\*\*\* With dedication ghost-written by Samuel Johnson.

£300 - 400

2

**Adams (George)** ASTRONOMICAL AND GEOGRAPHICAL ESSAYS: CONTAINING, I. A COMPREHENSIVE VIEW OF THE GENERAL PRINCIPLES OF ASTRONOMY. II. THE USE OF THE CELESTIAL AND TERRESTRIAL GLOBES... III. THE DESCRIPTION AND USE OF THE ARMILLARY SPHERE, PLANETARIUM, TELLURIAN, AND LUNARIUM. IV. AN INTRODUCTION TO PRACTICAL ASTRONOMY, FIRST EDITION, engraved frontispiece and 21 plates, 15pp "Catalogue of Mathematical and Philosophical Instruments Made and Sold by George Adams, Mathematical Instrument Maker to His Majesty, and Optician to His Royal Highness the Prince of Wales" at rear, light dampstaining to foot of frontispiece but a bright, clean copy otherwise, contemporary tree calf, gilt, spine rubbed and chipped, upper joint neatly repaired, [Tomash & Williams A8], 8vo, for the Author by R. Hindmarsh, 1789.

£300 - 400

3

**Adams (George)** ASTRONOMICAL AND GEOGRAPHICAL ESSAYS, second edition, engraved frontispiece and 21 folding plates, 15pp. catalogue, later 3pp. advertisement for globes and orreries bound at rear, light offsetting or occasional foxing, modern half calf, [Tomash

& Williams A9], 8vo, R. Hindmarsh, 1790.

£150 - 200

4

**Adding machines.- Gonnella (Tito)**

DESCRIZIONE DI DUE MACCHINE ARITMETICHE PER L'ADDIZIONE, IMMAGINATE E COSTRUTTE DA TITO GONNELLA... PREMIATO ALL'ESPOSIZIONE UNIVERSALE DI LONDRA DEL 1851, FIRST EDITION, 2 folding lithographed plates (some tearing along folds), spotting, original printed pink wrappers, spotted, splitting to spine ends, minor fraying to fore-edge, [Tomash & Williams G57], large 8vo, Florence, Tipografia Calasanziana, March 1859.

\*\*\* Gonnella presented his calculating machine at the Great Exhibition in London in 1851, where it won the highest medal. His researches were funded by Leopold II, Grand Duke of Tuscany, to whom he gave one of the three calculating machines constructed in 1857. The first machine described here is a dial adder, similar to Pascal's machine, and the other later machine (devised in 1857) is a keyboard single-digit adder or column adder. Examples of both machines survive today, the first in Bonn, the second in Florence.

£750 - 1,000

5

**Agucchia (Lattanzio)** IL COMPUTISTA PAGATO ...

PER TROVARE IN UN SUBITO IL CONTO FATTO DI QUALUNQUE SORTE DI PAGAMENTO, CHE SI FACCIA, COSÌ A GIORNI, COME A MESI, & ANNO, FIRST EDITION, engraved title, woodcut initials, occasional scattered spotting, ink ownership inscription to foot of title, modern calf by Green Dragon Bindery of Shrewsbury, MA, [Tomash & Williams A45], 4to, Rome, Giacomo Mascardi, 1613.

\*\*\* First edition of this early set of interest



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tables that would prove highly successful with several editions through both the seventeenth and eighteenth centuries. While most of the book is taken up with tables, the three-page introduction explains that the book is provided so that those lending may know what rates to charge, and also that those borrowing can check to be sure they aren't paying usurious rates.

£150 - 200

6

**Agucchia (Lattanzio)** IL COMPUTISTA PAGATO ... DI NUOVO RISTAMPATO, CORRETTO IN MOLTI LUOGHI, CON L'AGGIUNTA, *title with woodcut illustration, spotting, ink stain to lower corner, old Italian inscription on front free endpaper explaining that this book should be used in the study room, contemporary vellum, [Tomash & Williams A46], Todi, Vincenzo Galassi, 1671* § Luchini (Domenico) Tariffa ovvero pratica di conteggiare accresciuta di copiose operazioni aritmetiche, *Rome: Francesco Ansillioni, 1737, BOUND WITH Tavola ovvero tariffa di conteggiare ridotta in modo facile per far ogni gran conto, Rome: Francesco Ansillioni, 1737, together 2 works in 1 vol., titles with woodcut decorations, scattered spotting, contemporary vellum, later endpapers, [Tomash & Williams L138 & L139]* § Manuale de' conti fatti delle monete, ammesse nella tariffa del regno, *title with engraved vignette, woodcut illustrations of coins, leaves index-tabbed, [Tomash & Williams R28], Verona, Luigi Mainardi, 1810, 4to & 8vo (3)*

\*\*\* A good group of Italian ready reckoners for use by merchants to help calculate interest and exchange rates.

£150 - 200

7

**Alexander (Andreas)** LOGOMETRON ARCHITECTURAE MILITARIS FREITAGIANAE, KUNSTGEMASS DER FREITAGSCHEN BEVESTIGUNG, FIRST EDITION, *12 engraved plates, 2 double-page, additional large folding plate loosely inserted, browning to text, contemporary vellum, lacking ties, [Tomash & Williams A58], oblong 8vo, Arnheim, J. F. Haag, 1665.*

\*\*\* A rare work on the sector. "After introducing the history of the sector and giving credit to Galileo, he describes the scales and tables on the instrument and the elementary operations it can perform. This is followed by some simple arithmetic problems. He then quickly introduces more complex problems involving military fortification, geometry, and surveying" - Tomash & Williams.

Provenance: Bibliothek des K. S. Artillerie-Corps, Saxony (ink stamps to title).

£1,000 - 1,500

8

**America.- Abel (Thomas)** SUBTENSIAL PLAIN TRIGONOMETRY, WROUGHT WITH A SLIDING-RULE, WITH GUNTER'S LINES: AND ALSO ARITHMETICALLY, IN A VERY CONCISE MANNER. ANT THIS METHOD APPLY'D TO NAVIGATION, FIRST EDITION, *7 engraved folding plates, spotting and browning, repairs and restorations to plates, bookplate to pastedown, 20th century half calf, [Tomash & Williams A2], 8vo, Philadelphia, Printed and Sold for the Author, by Andrew Steuart, 1761.*

\*\*\* Rare, the first American book on trigonometry and the work "which introduced the slide rule in America" (Karpinski, *Bibliography of mathematical works printed in America through 1850*, p.66). The author, a schoolmaster in Philadelphia, financed this book by soliciting advance subscriptions. In the book's preface, he boasts "I have 830 Books subscribed for"; in a newspaper advertisement (Pennsylvania Gazette, November 19, 1761, p.4), he begs those who had promised to subscribe to keep their promise, for otherwise he and his family would be ruined.

Provenance: Yale University Library (bookplate).

£500 - 700

9

**America.- Bowditch (Nathaniel)** THE NEW AMERICAN PRACTICAL NAVIGATOR, FIRST EDITION, *tables and diagrams, engraved folding "Chart of the Atlantic Ocean" and 7 plates (one partially hand-coloured), folding chart and*



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*one plate repaired, offsetting and browning, contemporary sheep, sympathetically rebaked, light wear to extremities, [Tomash & Williams B216], 8vo, Newburyport, Mass., Edmund M. Blunt for Thomas & Andrews, 1802.*

\*\*\* First edition of this important American contribution to navigation, such is the import of this work that every U.S. Naval vessel is still required to carry a copy (with modern revisions).

Variant issue, with the imprint "Newburyport (Mass), Edmund M. Blunt for Brown & Stansbury" and differing advertisements at end. No priority among the seven known variants of this first edition has been established.

£1,500 - 2,500

## 10

**Ampère (André Marie)** ESSAI SUR LA PHILOSOPHIE DES SCIENCES, OU EXPOSITION ANALYTIQUE D'UNE CLASSIFICATION NATURELLE DE TOUTES LES CONNAISSANCES HUMAINES, 2 vol., FIRST EDITION, *folding tables (a few tears), marginal browning, 19th century morocco-backed boards, joints a little rubbed, [Tomash & Williams A74], 8vo, Paris, Bachelier, 1834-43.*

\*\*\* First edition of this two-volume study by Ampère, notable for containing the first known use of the term "cybernetics".

£400 - 600

## 11

**Apianus (Petrus)** INSTRUMENTUM PRIMI MOBILIS, FIRST EDITION, *title in red and black with large woodcut vignette, full-page woodcut coat-of-arms on a2, woodcut diagrams and initials, lacking final blank leaf, qq3 with short tear slightly affecting text, occasional soiling and marginal staining, modern morocco-backed cloth, [Tomash & Williams A84, J1; VD16 A3087, J8], folio (316 x 206mm.), Nuremberg, Johannes Petreius, 1534.*

\*\*\* IMPORTANT WORK ON SPHERICAL TRIGONOMETRY, which also includes the earliest printing of Geber's *De Astronomia*, a reworking of Ptolemy's *Almagest*. "In this volume Apian published a table of sines that,

for the first time, was based on a circle with a radius of a power of ten, in this case one hundred thousand. The values of the functions were thus decimal and were easily adapted to any situation in which the defining circle was a decimal power" (Tomash & Williams)

£5,000 - 7,000

## 12

**Apianus (Petrus)** INSTRUMENTUM SINUUM, SEU PRIMI MOBILIS, NUPER... INVENTUM, *second edition, title printed in red and black with large woodcut illustration, coat of arms to verso, woodcut initials and diagrams, ink annotation in an early hand to c3, occasional light damp-staining, minor worming to outer margin, modern vellum, preserved in custom drop-back box, [Tomash & Williams A85; VD16 A3088], folio, Nuremberg, Johann Petreius, 1541.*

\*\*\* "This work is the second edition of Apian's Instrumentum primi mobilis. Although reduced in size, the work is essentially identical to the first portion of the first edition. However, Apian has provided a new preface and has elected not to include the astronomy text of Gerard issued with the first edition." - Tomash & Williams.

£1,000 - 1,500

## 13

**Ardüser (Johann)** GEOMETRIAE, THEORICAE ET PRACTICAE. XII. BUCHER, INN WELCHEN DIE GEOMETRISCHEN FUNDAMENT EUCLIDS & ALS IN EINEM HANDBUCH BESCHREIBEN WERDEN, FIRST EDITION, *Gothic letter, title within engraved architectural border, woodcut initials and diagrams, 2 folding woodcut diagrams, dampstaining to head of first few ff., bound in a vellum leaf from a fourteenth-century manuscript, [Tomash & Williams A92; VD17 39:121225G], 4to, Zurich, Johann Jakob Bodmer, 1627.*

\*\*\* "The majority of the work deals with commonly encountered survey problems: finding heights of towers, areas of land, etc. The work is notable for the use of a mirror in dealing with some of the more difficult



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problems" - Tomash & Williams.

£2,000 - 3,000

**14**

## **Artillery.- Montanari (Geminiano)**

MANUALETTO DE BOMBISTI, OVERO RISTRETTO DELLE AVVERTENZE PIÙ NECESSARIE PER BEN MANEGGIARE I MORTARI: AGGIUNTOVI LE TAVOLE DELLE INCLINAZIONE DI ESSI MORTARI PER FARE I TIRI GIUSTI: CALCOLATE SECONDO LA DOTTRINA DEL GALILEO, E D'ALTRI MATEMATICI, E RIDOTTE AD USO FACILE, DA FERVIRSENE SENZA FAR CONTI, *4 engraved folding plates, without final blanks, one folding plate repaired, later boards, light surface soiling, preserved in custom drop-back box, [Tomash & Williams M119], 8vo, Venice, Poletti, 1690.*

£150 - 200

**15**

**Astrolabes.- Población (Juan Martinez)** DE USU ASTROLABI COMPENDIUM, SCHEMATIBUS COMMODISSIMIS ILLUSTRATUM, *title with woodcut device, woodcut initials and illustration, numerous annotations in a contemporary hand, lacking final 6ff. (see note), G5 repaired at head with printed pagination supplied by hand, occasional light marginal dampstaining, short repaired tear to endpaper, modern vellum, [Tomash & Williams P96], 8vo, Paris, Jean Barbé for Jacques Gazeau, 1546.*

\*\*\* A treatise on use of the astrolabe by a lecturer in the Collège Royale, first printed in Paris in 1519, and reprinted there at least seven times (the last in 1557). This copy lacks 6 leaves at the end of the book, where Población reprinted Giorgio Valla's translation of a short text on the astrolabe by the Byzantine astronomer Nikephorus Gregoras.

£150 - 200

**16**

**Astrolabes.- Stoeffler (Johannes)** ELUCIDIATIO FABRICAE USUSQUE ASTROLABII... ATQUE TOTIUS SPHERICE DOCTISSIMO NUPER INGENIOSE CONCINNATA ATQUE IN LUCEM EDITA, FIRST EDITION, *title within woodcut architectural border, woodcut diagrams, charts and illustrations, some full-page, those on B3v, C4v and D3r with extension slips (D4r with one misbound,*

*lacking slips on A6v), decorative initials and printer's device at end, [\*\*6v] with poem by Philipp Melanchthon and woodcut arms of George Simler, 2ff. following title with neatly repaired tears, ink stamp erased from foot of title, G2 becoming loose, several ff. towards end neatly mounted on stubs, 20th century half vellum, black ink lettering to spine, [Adams S1886; Houzeau & Lancaster 3256; Stillwell Science, 892; Tomash & Williams S197; Wellcome 6099], 4to, Oppenheim, Jacob Köbel, 1513 [colophon dated 1512].*

\*\*\* The most comprehensive treatise on the astrolabe of its time. It was handsomely printed at the first press in Oppenheim. "Stoeffler recognized that, in mapping, computation of the distance between two places whose latitude and longitude were known failed to take into account the convergence of the meridians" - Stillwell. The poem by Melanchthon is possibly his first appearance in print.

Provenance: Harrison D. Horblit (book label).

£1,500 - 2,000

**17**

**Atom bomb.-** ATOMIC ENERGY. A GENERAL ACCOUNT OF THE DEVELOPMENT OF METHODS OF USING ATOMIC ENERGY FOR MILITARY PURPOSES UNDER THE AUSPICES OF THE UNITED STATES GOVERNMENT, FIRST ENGLISH EDITION, *original printed stapled wrappers (spotted and browned), [PMM, p.253 no. 422e], 8vo, 1945.*

\*\*\* First English edition of the official account of the development of the atomic bombs.

£200 - 300

**18**

**Automata.- Svendsun (Andreas)** DET MAGISKE SKUESPIL, ELLER BESKRIVELSE OG UDVIKLING AF PIERRES OG DEGABRIELS FORESTILLINGER OG KUNSTER, SAMT DE MAGISKE HEMMELIGHEDER I SAMME, TIL UNDERRETNING FOR DEM, SOM HAVE BIVAANET SAMME OG HAVE LYST TIL AT GIØRE LIGNENDE KUNSTER, *engraved folding plate, lacking a preliminary leaf, Copenhagen, Carl Friderich Schubart, 1795 BOUND WITH Seiferheld (Georg Heinrich) SAMMLUNG ELECTRISCHER SPIELWERKE FÜR JUNGE ELEKTRIKER.*



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SIEBENTE LIEFERUNG, *7 engraved plates, Nuremberg and Altdorf, J. C. Monath & J. F. Kußler, 1796 AND Seiferheld (Georg Heinrich) Sammlung electrischer Spielwerke für junge Elektriker. Achte Lieferung, 10 engraved plates (2 partially hand-coloured), Nuremberg and Altdorf, J. C. Monath & J. F. Kußler, 1799, together 3 works in 1 vol., Gothic letter, occasional light foxing, contemporary calf-backed boards, rather worn, [Tomash & Williams S219; S79; S80], 8vo.*

\*\*\* Provenance: Carl Möller (signature).

£150 - 200

**19**

**[Babbage (Charles) and John Herschel].**

MEMOIRS OF THE ANALYTICAL SOCIETY 1813, FIRST EDITION, *errata f., ink inscription to head of contents p., Cambridge, 1813 BOUND WITH Agnesi (Maria Gaetana) Analytical institutions... translated into English by John Colson, vol. 2 only, half-title, Taylor and Wilks, 1801 together 2 works in 1 vol., occasional light foxing or finger-soiling, both title-pages cut down at head and restored, lacking front free endpaper, 19th century half morocco, extremities rubbed, [Origins of Cyberspace 17-18 (copy lacking two leaves of the Babbage paper); Tomash & Williams B67 & A41; Van Sinderen 1-2], 4to.*

\*\*\* Rare. "Driven by their desire to modernize the teaching of mathematics at Cambridge when they were undergraduates there, Babbage, Herschel and Peacock founded the Analytical Society in 1813. The contents were of surprisingly high quality (often written by the founders and their friends). This volume contains a preface and three articles. Babbage was certainly the author of the preface and the first article, and he might well have written the second" - Tomash & Williams.

£1,000 - 1,500

**20**

**Babbage (Charles), John F.W. Herschel and George Peacock, translators.** AN ELEMENTARY TREATISE ON THE DIFFERENTIAL AND INTEGRAL CALCULUS BY SILVESTRE FRANÇOIS LACROIX, FIRST

EDITION IN ENGLISH, *5 engraved folding plates, foxing, modern boards, [Tomash & Williams L12; Origins of Cyberspace 20; Van Sinderen 6], Cambridge, 1816 § Babbage (Charles) Examples of the solutions of functional equations, engraved plate, BOUND AFTER Herschel (John Frederick William) A Collection of Examples of the Applications of the Calculus of Finite Differences, together 2 works in 1 vol., occasional foxing, modern cloth, [Tomash & Williams B23 bis; Origins of Cyberspace 26; Van Sinderen 13], Cambridge, 1820, 8vo (2)*

\*\*\* "This translation, done while the translators were still undergraduates, was instrumental in shifting the teaching of mathematics in Britain from Newton's calculus of fluxions to the methods of the differential and integral calculus developed in Europe." - Tomash & Williams. The following 2 works by Herschel and Babbage are a large set of example of the application of the calculus differences, initially intended to accompany that translation but ultimately published separately.

£250 - 350

**21**

**Babbage (Charles)** OBSERVATIONS ON THE ANALOGY WHICH SUBSISTS BETWEEN THE CALCULUS OF FUNCTIONS AND OTHER BRANCHES OF ANALYSIS, *in Philosophical Transactions of the Royal Society of London. For the year MDCCCXVII, engraved plates, occasional light foxing or offsetting, contemporary calf, gilt, extremities a little rubbed, [Origins of Cyberspace 21; Tomash & Williams B44; Van Sinderen 7], 1817; Observations on the notation employed in the calculus of functions from Transactions of the Cambridge Philosophical Society, pp. 63-76, a few spots, modern wrappers, [Tomash & Williams B47; Van Sinderen 15], [Cambridge, 1822]; On the application of analysis to the discovery of local theorems and porisms from Transactions of the Royal Society of Edinburgh, vol.9, pp.338-352, engraved plate, some foxing and browning, later wrappers, browned, new printed label to upper cover, [Tomash & Williams B4; Van*



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*Sinderen 21*, [Edinburgh, 1823], 4to (3)

\*\*\* A good set of 3 papers by Babbage. The first also includes papers by Joseph Banks, Humphrey Davy and William Herschel.

£200 - 300

## 22

**Babbage (Charles)** Examples of the solutions of functional equations, *engraved plate*, BOUND AFTER Herschel (John Frederick William) A Collection of Examples of the Applications of the Calculus of Finite Differences AND Peacock (George) A collection of examples of the applications of the differential and integral calculus, *6 engraved folding plates*, together 3 works in 1 vol., *occasional foxing, contemporary cloth, neatly rebacked, preserving original backstrip*, [Origins of Cyberspace 26; Tomash & Williams B23 bis, H126, P32; Van Sinderen 13], 8vo.

£200 - 300

## 23

**Babbage (Charles).**- MEMOIRS OF THE ASTRONOMICAL SOCIETY OF LONDON, vol.1-3 only, FIRST EDITION, *14 engraved plates, 2 folding, one folding printed table, most plates offset, some trimmed, contents leaves in vol.2 misbound, contemporary half russia over marbled boards, spines gilt, vol.1 and 3 rebacked preserving original spines*, [Tomash & Williams A107, B32], 4to, 1822-26-29.

\*\*\* Babbage was one of the founders of the society, which later became the Royal Astronomical Society, and contributed the following papers:

- i) A note on the application of machinery to the calculation of astronomical tables [Tomash & Williams B40; Van Sinderen 17; Origins of Cyberspace 33]
- ii) Notice respecting some errors common to many tables of logarithms [Tomash & Williams B41; Van Sinderen 32]
- iii) Observations on the application of machinery to the computation of mathematical tables [Tomash & Williams B45; Van Sinderen 19; Origins of Cyberspace 33]
- iv) On a New Zenith Micrometer [Tomash & Williams B36; Van Sinderen 25].

Also included, relating to Babbage, is Address of Henry Thomas Colebrooke, president of the Astronomical Society of London, on presenting the gold medal to Charles Babbage [Tomash & Williams C117]

Provenance: Ashely (bookplate).

£500 - 700

## 24

**Babbage (Charles)** A COMPARATIVE VIEW OF THE VARIOUS INSTITUTIONS FOR THE ASSURANCE OF LIVES, FIRST EDITION, ASSOCIATION COPY WITH INK OWNERSHIP INSCRIPTION OF HENRY PREVOST BABBAGE AND PRESENTATION INSCRIPTION FROM RICHARD H. BABBAGE, *folding table, bookplate to pastedown, contemporary half calf, upper cover detached, upper portion of spine becoming loose, rubbed*, [Origins of Cyberspace 36; Tomash & Williams B10; Van Sinderen 26], 8vo, 1826.

\*\*\* Babbage's first substantial published work and the first thorough treatise on actuarial theory. "This volume is illustrative of Babbage's broad range of interests and grew out of his experience as an actuary for the Protector Life Assurance Society. The insurance business was in its infancy at the time, and many companies were being formed in England. The Protector did not, in fact, issue any policies. It was within a few days of opening its doors when, for reasons still not clear, the directors unexpectedly decided to cease business. Rather than a book for the insurance industry, Babbage aimed this volume at the interested layman." - Tomash & Williams.

Provenance: Henry Prevost Babbage (1824-1918, the youngest son of the author); Richard H. Babbage (1883-?1971, author's great grandson); Richard Bedford Bennett, 1st Viscount Bennett (1870-1947) (ink inscriptions); J. H. Lea (bookplate).

£200 - 300

## 25

**Babbage (Charles)** ON A METHOD OF EXPRESSING BY SIGNS THE ACTION OF MACHINERY [&] ON ELECTRICAL AND MAGNETIC ROTATIONS, *in Philosophical transactions of the Royal Society*



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of London for the year MDCCCXXVI, FIRST EDITION, 19 engraved plates (5 folding), spotting to plates, unopened, original plain paper wrappers, ink numbering to spine, final gathering and lower wrapper disbound, upper cover becoming loose, spine chipped and worn, preserved in custom drop-back box, [Origins of Cyberspace 37 ("Action of machinery"); Tomash & Williams B33 & B21; Van Sinderen 27-28], 4to, 1826.

\*\*\* The first paper [pp.250-265] is one of the key works in the development of modern computing, Babbage's first formulation and explanation of his mechanical notation system, crucial in the development of his Difference and Analytical Engines. The second [pp. 494-528] is on the magnetic properties of matter. The volume also includes contributions by Herschel, Davy and Faraday.  
£750 - 1,000

## 26

**Babbage (Charles)** NOTICE RESPECTING SOME ERRORS COMMON TO MANY TABLES OF LOGARITHMS, from Memoirs of the Astronomical Society of London, vol. 3, pt. 1, pp.65-67, disbound, [Tomash & Williams B42; Van Sinderen 32], 4to, 1829.

\*\*\* "An important paper in which Babbage points out that almost all logarithmic tables had been copied from earlier versions and consequently contained the same errors. He points out that the source of six common errors was the table produced by Vlacq in 1628. He also notes the same errors were found in a set of tables, in the library of the Royal Society, produced in China." - Tomash & Williams  
£150 - 200

## 27

**Babbage (Charles)** TABLE OF LOGARITHMS OF THE NATURAL NUMBERS, FROM 1 TO 108000, FIRST EDITION, second issue with errata following the preface, PRESENTATION COPY WITH INK INSCRIPTION "TO PROFESSOR MAGISTRINI &C. BOLOGNA WITH THE AUTHOR'S COMPLIMENTS" to front free endpaper, printed on yellow paper, original boards, printed paper label to spine, neatly rebacked,

with original spine laid down, preserved in custom drop-back box, [Tomash & Williams B54], large 8vo, B. Fellowes, 1829.

\*\*\* Babbage's interest in calculating machines arose from his desire to mechanically compute sets of mathematical tables and thus eliminate the errors that inevitably crept into them when they were calculated and typeset by hand. He created this table of logarithms not by calculating them, but by comparing many different tables against one another. When differences were noted he would recalculate the correct value, thus producing the first error-free table of logarithms" - Tomash & Williams.

Provenance: Professor Giovanni Battista Magistrini (1777-1849, Italian mathematician at the University of Bologna and a member of Accademia nazionale delle scienze, presentation inscription)  
£1,000 - 1,500

## 28

**Babbage (Charles)** ON THE ECONOMY OF MACHINERY AND MANUFACTURES, third edition, engraved title, original cloth, spine a little darkened, 1833; Traité sur l'économie des machines et des manufactures, FIRST FRENCH EDITION, foxing, contemporary boards, a little worn, Paris, Bachelier, 1833; Tratado de mecánica práctica y economía política, FIRST SPANISH EDITION, engraved frontispiece, contemporary calf, Madrid, 1835, [Tomash & Williams B19, B62 & B63]; and 3 others, machinery and manufactures, 8vo (6)  
£150 - 200

## 29

**Babbage (Charles)** TABLE OF THE LOGARITHMS OF THE NATURAL NUMBERS FROM 1 TO 108000, third edition, printed on green paper, very light foxing to title, but a very good, clean copy otherwise, modern calf-backed boards, [Tomash & Williams B56], 8vo, Charles Knight, 1834.  
£500 - 700



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**30**

**Babbage (Charles)** SULLA ECONOMIA DELLE MACCHINE E DELLE MANIFATTURE, FIRST ITALIAN EDITION, *original printed wrappers, spotted and creased, preserved in custom drop-back box, Florence, Presso Guglielmo Piatti in Vacchereccia, 1834; Ueber Maschinen un Fabrikenwesen, FIRST GERMAN EDITION, ink stamps, later calf-backed boards, Berlin, Stuhrschen Buchhandlung, 1833, [Tomash & Williams B15 & B31]; and 2 others, Babbage in Italian and German, 8vo (4)*

£150 - 200

**31**

**Babbage (Charles).- Barlow (Peter)** A TREATISE ON THE MANUFACTURES AND MACHINERY OF GREAT BRITAIN... TO WHICH IS PREFIXED, AN INTRODUCTORY VIEW OF THE PRINCIPLES OF MANUFACTURES BY CHARLES BABBAGE... FORMING A PORTION OF THE ENCYCLOPAEDIA METROPOLITANA, 3 vol., 87 *engraved plates, contemporary calf, gilt, spine chipped, rubbed, [Origins of Cyberspace 53; Tomash & Williams B27; Van Sinderen 36 (incorrect date of 1851)], 4to, 1836.*

\*\*\* Provenance: Charles T. James (gilt name at foot of spines).

£400 - 600

**32**

**Babbage (Charles)** LETTER FROM MR BABBAGE TO THE MEMBERS OF THE BRITISH ASSOCIATION FOR THE PROMOTION OF SCIENCE, FIRST EDITION, *the odd spot, original wrappers a little soiled, splitting to joint ends, [Tomash & Williams B28; Van Sinderen 53], 8vo, Richard Clay, 1839.*

\*\*\* Rare. Babbage's account of the circumstances surrounding the withdrawal of his and Herschel's names to stand for President of the British Association for the Promotion of Science.

£350 - 450

**33**

**Babbage (Charles)** TABLE OF THE LOGARITHMS OF THE NATURAL NUMBERS FROM 1 TO 108000, *fourth edition, occasional marginal browning or soiling, ink ownership inscription of William*

*Henry Tyndall to title, contemporary half calf, William Clowes and Sons, 1841 & Caillet (François) Table of the logarithms of sines and tangents, for every second, of the first five degrees, and of the sines, cosines, tangents and cotangents, for every ten seconds of the quadrant, the odd spot, contemporary half calf, Paris, Firmin Didot, 1827, [Tomash & Williams B57 & C16], 8vo (2)*

\*\*\* Caillet's tables were based on those prepared by Babbage (the spine label credits both) and was one of the earliest examples of printing in stereotype.

£150 - 200

**34**

**Babbage (Charles)** TABLE OF THE LOGARITHMS OF THE NATURAL NUMBERS FROM 1 TO 108000, *fourth edition, light browning, contemporary boards, preserved in custom drop-back box, 1841 & Lacroix (Sylvestre François) Traité élémentaire de calcul différentiel et de calcul intégral, FIRST EDITION, 4 engraved folding plates, ink stamps to title, nineteenth-century cloth, Paris Duprat, 1802, [Tomash & Williams B57 & L9]; and another, Babbage and tables, 8vo (3)*

£200 - 300

**35**

**Babbage (Charles)** TABLE OF THE LOGARITHMS OF THE NATURAL NUMBERS FROM 1 TO 108000, *fourth impression, perforated blind-stamp to title, ink notes to foot of dedication p. ("Chas Babbage died Oct 21, 1871, aged 79. I.B.F. met him in London in 1851"), repaired tear to endpaper, 19th century half morocco, rebacked and recorned, [Tomash & Williams B58], 8vo, John Murray, 1844.*

\*\*\* Provenance: Franklin Institute Library, Philadelphia.

£400 - 600

**36**

**Babbage (Charles)** OBSERVATIONS ON THE TEMPLE OF SERAPIS AT POZZUOLI NEAR NAPLES, WITH AN ATTEMPT TO EXPLAIN THE CAUSES OF THE FREQUENT ELEVATION AND DEPRESSION OF LARGE PORTIONS OF THE EARTH'S SURFACE IN REMOTE PERIODS, AND TO PROVE THAT THOSE CAUSES CONTINUE IN ACTION AT



THE PRESENT TIME. WITH A SUPPLEMENT.  
CONJECTURES ON THE PHYSICAL CONDITION OF THE  
SURFACE OF THE MOON, FIRST EDITION,  
PRESENTATION COPY WITH INK INSCRIPTION "TO  
PROFESSOR SISMONDEN FROM THE AUTHOR" *to  
front free endpaper, 2 double-page  
lithographed plates (1 hand-coloured),  
illustrations, 4pp. advertisements, original  
pictorial cloth, gilt, light bumping to spine  
ends and corners, but a bright and fine  
example overall, [Origins of Cyberspace 63;  
Tomash & Williams B48], 8vo, Privately  
Printed, [By Richard And John Taylor For The  
Author], 1847.*

\*\*\* A presentation copy of Babbage's survey  
of the ruins near Naples. Angelo Sismonda  
(1807-1878), an Italian geologist, had  
supported Babbage in his election as a "socio  
corrispondente" at the Accademia della  
Scienze di Torino. . Correspondence between  
Babbage and Sismonda survives in the  
Academy's archives and also in the British  
Library (Add Ms 37191).

£300 - 500

**37**

**Babbage (Charles)** THE EXPOSITION OF 1851; OR,  
VIEWS OF THE INDUSTRY, THE SCIENCE, AND THE  
GOVERNMENT OF ENGLAND, *second edition, half-  
title, 4pp. advertisements and 16pp.  
publisher's catalogue at end, original cloth,  
rebacked, sunned and soiled, [Tomash &  
Williams B25; cf Van Sinderen 33], 8vo, John  
Murray, 1851.*

\*\*\* Enlarged edition with appendix: "The  
eleventh chapter of the history of the Royal  
Society by C.R. Weld", which contains an  
account of Babbage's Calculating Machine  
project.

Provenance: Alfred White Van Sinderen  
(1924-1998).

£500 - 700

**38**

**Babbage (Charles)** THE EXPOSITION OF 1851; OR,  
VIEWS OF THE INDUSTRY, THE SCIENCE, AND THE  
GOVERNMENT OF ENGLAND, FIRST EDITION, *half-  
title, ex-library copy with ink stamp to title  
and book label, original cloth, spine slightly*

*faded and with small nick at head, cloth  
chemise and slip-case, [Tomash & Williams  
B24; Van Sinderen 61; Norman 95; Origins of  
Cyberspace 67], 8vo, John Murray, 1851.*

\*\*\* "Babbage had been proposed to head the  
Industrial Commission for the Great Exhibition  
of 1851, but was rejected because of his early  
radicalism and his conflicts with the  
government over the Difference Engine.  
Resentful over his treatment, Babbage  
decided to publish a book on the Exhibition to  
set before the public the ideas that he  
otherwise would have presented to the  
Exhibition's governing committees. Babbage's  
Difference Engine, although certainly one of  
the engineering marvels of the nineteenth  
century, was not included in the Exhibition"  
(Norman).

£500 - 700

**39**

**Babbage (Charles)** THOUGHTS ON THE PRINCIPLES  
OF TAXATION..., *second edition, later wrappers,  
1851 § A letter to Charles Babbage, Esq. in  
reply to his "Thoughts on the principles of  
taxation, with reference to a property tax and  
its exceptions" by the Liverpool Financial  
Reform Association, FIRST EDITION, disbound,  
Liverpool, [1852], [Tomash & Williams B61,  
L119]; and 2 others, another copy of the same  
and a commons report citing Babbage, 8vo &  
folio (4)*

£200 - 300

**40**

**Babbage (Charles)** NOTE SUR LA MACHINE  
SUÉDOISE DE MM. SCHUTZ POUR CALCULER LES  
TABLES MATHÉMATIQUES..., *extract from Comptes  
rendus hebdomadaires des séances de  
l'académie des sciences..., vol. 41, no 15,  
pp.557-60., disbound, [Tomash & Williams  
B30], Paris, 1855; and 3 others, Babbage and  
Scheutz, 4to & 8vo (4)*

£150 - 200

**41**

**Babbage (Charles)** OBSERVATIONS ADDRESSED...  
TO THE PRESIDENT AND FELLOWS OF THE ROYAL  
SOCIETY, FIRST EDITION, *original printed*

*wrappers, margins creased and darkened, vertical crease, [Tomash & Williams B43], 8vo, 1856.*

\*\*\* Rare. Babbage's paper directed to the awards committee of the Royal Society in which he attempts to draw their attention to Per Georg Scheutz's difference engine.

£200 - 300

**42**

**Babbage (Charles)** OBSERVATIONS ON THE DISCOVERY IN VARIOUS LOCALITIES OF THE REMAINS OF HUMAN ART MIXED WITH THE BONES OF EXTINCT RACES OF ANIMALS, *offprint from Proceedings Of The Royal Academy, PRESENTATION COPY WITH INK INSCRIPTION "TO GEORGE TICKNOR ESQUIRE, FROM THE AUTHOR" to head of title, disbound, title trimmed at head, first and last ff. loose and a little chipped, [Tomash & Williams B46; cf. Origins of Cyberspace 78, Van Sinderen 75 (journal issue, where pp.59-72)], 8vo, 1859.*

\*\*\* Provenance: George Ticknor (1791-1871, American traveller and scholar, presentation inscription), Ticknor records visiting Babbage in his journal.

£400 - 600

**43**

**Babbage (Charles).- Horsley (Sir Victor)** DESCRIPTION OF THE BRAIN OF MR. CHARLES BABBAGE F.R.S., *offprint from Philosophical Transactions of the Royal Society, vol. 200, series B, Royal Society of London, 1907, pp.117-131, original printed wrappers, chipped and detached* § A Letter from John Davy... accompanied by documentary evidence contributed by Sir James South and Benjamin Gomertz... in Reply to a certain charge made by Charles Babbage..., *offprint from The Philosophical Magazine for February 1865, presentation inscription from Sir James South to head, unbound, 1865* § Babbage (Henry Prevost) Memoirs and Correspondence of Major-General Babbage, *original cloth, William Clowes, [1915], [Tomash & Williams H167, D18 & B70]; and 5 others, Babbage, 8vo & 4to (8)*

£150 - 200

**44**

**Babbage (Charles)** *The Works...*, 11 vol., edited by Martin Campbell-Kelly, *illustrations, original cloth, lettered in gilt, [not in Tomash & Williams], 8vo, 1989.*

£100 - 150

**45**

**Baeza (Luis)** NUMERANDI DOCTRINA PRÆCLARA METHODO EXPOSITA, IN QUA BREVITER CONTINENTUR, & EXPONUNTUR APERTE EA, QUAE EX UNIVERSA ARITHMETICA SUNT AD USUM POTIORA, FIRST EDITION, *title with woodcut device, woodcut initials and head-pieces, tables and illustrations, folding table, occasional light marginal staining, later marbled wrappers, joints rubbed, modern printed label to upper cover, preserved in modern drop-back box, [Smith, Rara Arithmetica, p.269; Tomash & Williams B74], 8vo, Paris, Benoît Prévost for Guillaume Cavellat, 1555.*

\*\*\* An early work on arithmetic. "It begins by presenting the Hindu-Arabic numerals, addition and multiplication tables, squares, cubes and square roots ... thereafter devoted to topics such as mixed radix arithmetic (addition of days, hours, minutes, etc.), including a table that could be used to convert days to hours, etc." - Tomash & Williams.

£400 - 600

**46**

**Barrême (François)** LE LIVRE NECESSAIRE À TOUTE SORTE DE CONDITIONS. INVENTÉ DE NOUVEAU POUR TIRER TOUT D'UN COUP LES INTÉRÊTS, FIRST EDITION, *?second issue, engraved title and list of works by the author, woodcut initials and head-pieces, contemporary speckled calf, spine gilt, [Kress 1280; Tomash & Williams B101], 12mo, [Paris, Barrême], [1671].*

\*\*\* Compared with the copy in Kress, this one has just 14 preliminary leaves and is without pp.373-395 ("Les econtes faites"). *Le Livre Necessaire* became one of the foundational works for the new discipline of accounting.

£300 - 400

**47**

**Barrême (François)** LE LIVRE DES COMPTES FAITS,



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*third edition, engraved title, list of works by the author, portrait and coat of arms ff., the odd mark or small stain but very good clean copy overall, contemporary speckled calf, gilt, spine gilt, remains of library label to head of spine, [Kress 1326; Tomash & Williams B98], 12mo, Paris, Chez l'Auteur, 1673.*

£250 - 350

**48**

**Berkeley (Edmund C.)** GIANT BRAINS OR MACHINES THAT THINK, *New York, 1949* § Walter (William Grey) The Living Brain, *dust-jacket, spine ends and corners a little chipped, New York, 1953* § Ashby (William Ross) Design for a brain, *dust-jacket, spine ends and corners a little chipped, New York, 1952* § Wiener (Norbert) Cybernetics or control and communication in the animal and the machine, *tenth printing, New York, 1948*, first 3 first or first American editions, *original cloth, [Tomash & Williams B139bis, W6, A105 & W50]; and 15 others, cybernetics and automation, 8vo (19)*

£200 - 300

**49**

**Berkeley (Edmund C.)** GIANT BRAIN OF MACHINES THAT THINK, SECOND PRINTING, SIGNED PRESENTATION INSCRIPTION FROM THE AUTHOR TO ERWIN TOMASH *to front free endpaper, illustrations, original cloth, dust-jacket, spine ends and corners a little chipped, repaired tear with creasing to head of spine, lower fore-edge chipped, rubbing to extremities, [Origins of Cyberspace 463; Tomash & Williams B139], 8vo, New York, 1950.*

\*\*\* Works signed by Berkeley are rare.

"One of the first [books] to popularize computers and a major reason for the association of brain with computer. It covers all the major machines... and speculates on what the future would bring" - Tomash & Williams.

£150 - 200

**50**

**Bernegger (Matthias)** MANUALE MATHEMATICUM, DARINN BEGRIFFEN DIE TABULÆ

SINUUM, TANGENTIU[M], SECANTIUM, *Gothic letter, title within woodcut ornamental border, title trimmed at lower margin, woodcut initials and diagrams, tables, occasional browning, contemporary vellum, spotted, [Tomash & Williams B142; VD17 39:115055E], 8vo, Strassburg, Anton Bertram, 1619.*

\*\*\* Rare. The first book by Bernegger who would later translate two of Galileo's works into Latin.

£300 - 400

**51**

**Beveridge (William)** INSTITUTIONUM CHRONOLOGICARUM LIBRI II, *occasional ink notes in a contemporary hand, ink ownership inscription to title and endpaper, bookplate to pastedown, contemporary sheep, corners worn, [Tomash & Williams B147; Wing B2095], 4to, Thomas Roycraft for Walter Kettilby, 1669.*

\*\*\* "It is of interest from both a typographical and historical standpoint for the many different fonts of exotic character sets used to print out the tables, ranging from Hebrew and Greek to various Middle Eastern languages, including Arabic, Samaritan and Syriac." - Tomash & Williams.

Provenance: Aneas Oliphant (ink inscription dated 1694); Brown-Lindsay Library, United Presbyterian College (bookplate).

£150 - 200

**52**

**Binary.- Brander (Georg Friederich)** ARITHMETICA BINARIA SIVE DYADICA, DAS IST DIE KUNST NUR MIT ZWEY ZAHLEN, *second edition, title with woodcut decoration, woodcut head-and tail-piece, folding table, later patterned boards, some very minor wear to spine ends, preserved in modern drop-back box, [Tomash & Williams B231], 8vo, Augsburg, Widow of Eberhard Klett, 1769.*

\*\*\* The author, an instrument-maker and member of the Bavarian Academy of Science, credits his knowledge of binary notation to Johann Bernhard Wiedeburg's Dissertatio mathematica (Jena 1718), itself based on



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publications of Leibniz and Bernard le Bovier de Fontenelle. "Brander expressed the hope that [his] work on dyadics might serve the reader for recreational purposes, and perhaps even for keeping one's personal accounts unintelligible to prying eyes" (Anton Glaser, *History of binary and other nondecimal numeration*, Los Angeles: Tomash Publishers, 1981, pp.65-66).

£500 - 700

**53**

**Bion (Nicolas)** L'USAGE DE ASTROLABES, TANT UNIVERSELS QUE PARTICULIERS, FIRST EDITION, woodcut initials, head- and tail-pieces, 9 engraved folding plates, occasional very light dampstaining, contemporary calf, joints and spine ends repaired, [Tomash & Williams B163], 12mo, Paris, Chez Laurent d'Houry & Jean Boudot, 1702.

\*\*\* "The last book entirely about astrolabes to be published in the French language." - Tomash & Williams.

£300 - 400

**54**

**Bion (Nicolas)** TRAITÉ DE LA CONSTRUCTION ET DES PRINCIPAUX USAGES DES INSTRUMENTS DE MATHÉMATIQUE, FIRST EDITION, woodcut initials, head- and tail-pieces, 28 engraved plates (one folding), occasional staining or light foxing, bookplate to pastedown, contemporary calf, spine ends and corners strengthened and repaired, [Tomash & Williams B155], 8vo, Paris, widow of Jean Boudot, Jacques Collombat, and Jean Boudot fils, 1709.

\*\*\* Provenance: Pierre-Antoine Convers, of Saint-Jean-de-Losne ("Petri Antonii Convers Laudonensis" bookplate).

£300 - 400

**55**

**Bion (Nicolas)** TRAITÉ DE LA CONSTRUCTION ET DES PRINCIPAUX USAGES DES INSTRUMENTS DE MATHÉMATIQUE, title printed in red and black with engraved vignette, woodcut initials, head- and tail-pieces, engraved allegorical frontispiece and 30 folding plates, bookplate to pastedown, contemporary calf, joints and

spine rather worn, preserved in custom drop-back box, [Tomash & Williams B157], 4to, The Hague, Pieter Husson, Thomas Johnson, Pierre Gosse, et al., 1723.

\*\*\* Alexander Hume-Campbell, 2nd Earl of Marchmont PC (1675-1740, bookplate)

£300 - 400

**56**

**Bion (Nicolas)** THE CONSTRUCTION AND PRINCIPAL USES OF MATHEMATICAL INSTRUMENTS, translated and edited by Edmund Stone, FIRST ENGLISH EDITION, title printed in red and black, woodcut initials, head- and tail-pieces, 26 folding engraved plates, a few plates and final few ff. browned, bookplate to title verso, contemporary panelled calf, sympathetically rebaked, preserved in custom drop-back box, [Tomash & Williams B159; Wellcome II p.169], folio, by H.W. for John Senex and William Taylor, 1723.

\*\*\* First edition of this translation by Stone, a self-taught mathematician from Scotland, elected a Fellow of the Royal Society in 1725. Provenance: Charles, Viscount Bruce of Amphilhill (1682-1747, bookplate on verso of title).

£300 - 400

**57**

**Bion (Nicolas)** TRAITE DE LA CONSTRUCTION ET DES PRINCIPAUX USAGES DES INSTRUMENTS DE MATHÉMATIQUE, fourth edition, engraved allegorical frontispiece, portrait and 37 folding plates, engraved and woodcut initials, head- and tail-pieces, occasional very light offsetting, ink name to foot of title, contemporary mottled calf, some chipping and wear to spine ends and corners, [Tomash & Williams B158], 4to, Paris, C.A. Jombert & Nion fils, 1752.

\*\*\* Provenance: "Maire d'Hurecour Canonicus Bisuntinus" (ink inscription).

£300 - 400

**58**

**Bion (Nicolas)** THE CONSTRUCTION AND PRINCIPAL USES OF MATHEMATICAL INSTRUMENTS, translated and edited by Edmund Stone, 2 parts in 1,

including supplement, *second English edition, woodcut initials and head- and tail-pieces, 30 folding engraved plates, small portion of loss to plate 7 margin, occasional very light browning, some spotting, contemporary calf, sympathetically rebacked and recorned, covers worn and repaired*, [Baillie p.145; Tardy p.36; Tomash & Williams B160], folio, J. Richardson, 1758

\*\*\* Provenance: Bindon Blood (1755-1855, ink stamp to verso of title, dated 1793 in manuscript); Cardinal Hayes Library, New York, Manhattan College, (blindstamp to title).

£250 - 350

**59**

**Blanquart Sept-fontaines (Louis Marie)** LES INTERETS DES COMPTES COURANS TOUT CALULÉS, FIRST EDITION, *half-title, tables, contemporary tree calf, spine gilt, joints starting, Paris, Henri Agasse, 1802* § Le Gendre (François) L'arithmetique en sa perfection, mise en pratique selon l'usage des financiers, banquiers, et marchands, *second edition, woodcut diagrams and decorations, contemporary calf, spine gilt, Paris, Autheur & Cardin Besongne, 1663*, [Tomash & Williams B177 & L58]; and 2 others, ready reckoners and everyday manuals, 8vo (4)

£150 - 200

**60**

**Boissiere (Claude de)** L'ART D'ARITHMETIQUE, *third edition, woodcut device on title, diagrams, illustrations and decorations, contemporary vellum, lacking ties, possibly a remboitage, modern cloth drop-back box*, [Tomash & Williams B191; c.f. Smith, *Rara arithmetica*, p.262; Renouard, *Cavellat*, 181], 8vo, Paris, Guillaume Cavellat, 1563.

£400 - 600

**61**

**Bonocchio (Giovanni Battista)** BREVE, ET UNIVERSALE RISOLVTIONE D'ARITMETICA, *title with woodcut decoration, woodcut initials and head-pieces, tables surrounded by decorative woodcut borders, the occasional patch of*

*spotting or odd splash mark, contemporary wrappers, some wear to spine, preserved in custom drop-back box*, [Tomash & Williams B197], folio, Lodi, Paolo Bertoetti, 1617.

\*\*\* For converting units of measurement used in and around Milan.

£200 - 300

**62**

**Borgnis (Giuseppe Antonio)** TRAITÉ COMPLET DE MÉCANIQUE APPLIQUÉE AUX ARTS ... DES MACHINES IMITATIVES ET DES MACHINES THÉÂTRALES, FIRST EDITION, *27 folding plates of automata and other mechanical devices, occasional scattered spotting, contemporary half calf*, [Tomash & Williams B209], 4to, Paris, Bachelier, 1820.

\*\*\* Including automata, calculating and measuring machines, telegraph systems, and theatrical machinery.

£250 - 350

**63**

**Borgo (Pietro)** ARITMETICA MERCANTILE, FIRST EDITION, *118 leaves, 36-38 lines, gothic type, woodcut initials, printed marginal calculations, occasional foxing and soiling, small wormhole throughout textblock, central fold of each quire reinforced and browned, good margins, modern limp vellum with paper label to spine, slightly bowed, 4to (201 x 152mm.)*, Venice, Erhard Ratdolt, 1484.

\*\*\* RARE FIRST EDITION OF ONLY THE SECOND TREATISE ON COMMERCIAL ARITHMETIC TO BE PRINTED IN ITALY, after *Larte dela merchadantia*, Treviso, 1478, which was never reprinted.

Borgo's work was more detailed and influential and further incunable editions appeared in 1488 and 1491 followed by many more in the 16th century. Only 2 copies at auction prior to this one - the Honeyman copy in 1978 (£7,000) and the Shuckburgh copy (lacking 2 leaves) in 1993 (£3,600).

Provenance: early unidentified ink inscription to b4 recto.

Literature: Tomash & Williams B208; Smith, *Rara arithmetica*, p.16; ISTC ib 01034000.

£15,000 - 20,000



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64

**Bramer (Benjamin)** BESCHREIBUNG UND  
UNDERRICHT WIE ALLERLEY THEYLUNGEN ZU DEN  
MATHEMATISCHEN INSTRUMENTEN ZU VERFERTIGEN:  
NEBEN DEM GEBRAUCH EINES NEWEN PROPORTIONAL  
INSTRUMENTS IN ZWEYEN THEYLEN VERFASSET, FIRST  
EDITION, *title within decorative woodcut  
border, woodcut initials, head- and tail-pieces  
and diagrams, 2 folding woodcut plates (both  
with short tears), browning, heavy in places,  
modern calf-backed boards, [Tomash &  
Williams Add 9; VD17 39:121571A], small 4to,  
Marburg, Paul Egenolff, 1615.*

\*\*\* Rare first edition of Bramer's important  
treatise on the construction and usage of a  
sector or proportional compass in which he  
cites Galileo (who had published his *Le  
operazioni del compasso geometrico* in 1606),  
we can trace only 1 other copy at auction.

£2,000 - 3,000

65

**Brerewood (Edward)** DE PONDERIBUS, ET PRETIIS  
VETERUM NUMMORUM, EORUMQUE; CUM  
RECENTIORIBUS COLLATIONE, LIBER UNUS, FIRST  
EDITION, *title within architectural woodcut  
border, woodcut initials and head-pieces, text  
within ruled border, occasional light spotting,  
bookplate and ink names to pastedowns,  
contemporary limp vellum, preserved in  
custom drop back box, [Honeyman I, 499 (this  
copy); Tomash & Williams B246]; 4to, John  
Bill, 1614.*

\*\*\* The Honeyman copy of this work  
comparing the weights and coinage of the  
Jews, Greeks, Romans and Byzantines,  
including chapters on the constitutions of the  
metals and alloys used among the ancients.  
The author was the first Gresham professor of  
astronomy and a distinguished mathematician  
and antiquary.

Provenance: Jean Bouhier (1673-1746),  
president of the Parliament of Burgundy,  
inscribed "Bouhier" (listed in his manuscript  
library catalogue, Bibliotheca Buheriana; BU,  
Montpellier, Ms H19, fol. 156); Robert B. and  
Marian S. Honeyman (bookplate).

£400 - 600

66

**Brewster (Sir David)** A TREATISE ON NEW  
PHILOSOPHICAL INSTRUMENTS FOR VARIOUS  
PURPOSES IN THE ARTS AND SCIENCES, WITH  
EXPERIMENTS ON LIGHT AND COLOURS, FIRST EDITION,  
*half-title, 12 engraved folding plates, original  
boards, paper label to spine, repairs and  
restorations to spine, [not in Tomash &  
Williams], 8vo, 1813.*

\*\*\* Provenance: G. V. Hart (ink inscription).

£150 - 200

67

**Brewster (Sir David)** LETTERS ON NATURAL  
MAGIC, ADDRESSED TO SIR WALTER SCOTT, FIRST  
EDITION, *text illustrations, including 2 with  
movable parts, contemporary brown straight-  
grain morocco with gilt stamp to upper cover,  
extremities rubbed, [Origins of Cyberspace 47;  
Tomash & Williams B248; Toole Stott 136],  
small 8vo, John Murray, 1832.*

\*\*\* Includes mention of Babbage's engine:  
"Of all the machines which have been  
constructed in modern times, the calculating  
machine is doubtless the most  
extraordinary..."

Provenance: Law Society of Upper Canada  
(gilt stamp to upper cover).

£100 - 150

68

**Brown (John)** HOROLOGIOGRAPHIA: OR, THE ART  
OF DYALLING, BEING THE SECOND BOOK OF THE USE OF  
THE TRIANGULER QUADRANT, FIRST EDITION, *25  
engravings cut out and tipped onto margins of  
text leaves (originally printed on 41 leaves),  
lacking frontispiece and some diagrams,  
blindstamp to head of title and first 2 text ff.,  
bookplate to pastedown, contemporary calf,  
rebacked, [Tomash & Williams B274; Wing  
B5042], 8vo, John Danby and others, 1671.*

\*\*\* Rare, often found defective.

Provenance: The Earls of Macclesfield  
(bookplate and blindstamps).

£200 - 300



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69

**Bush (Vannevar)** OPERATIONAL CIRCUIT ANALYSIS, *New York*, 1929 § Strehl (Rolf) Die Roboter sind unter uns, *Oldenburg*, *Gerhard Stalling*, 1952 § Wilkes (Maurice Vincent) Automatic digital computers, *New York*, *Wiley*, 1956, FIRST EDITIONS, *plates and illustrations, original cloth*, [Tomash & Williams B299, S204 & W63]; and 20 others by the same and similar, 8vo (23)

£150 - 200

70

**Calandri (Filippo)** [ARITMETICA], FIRST EDITION, 104 ff., partly double column, 26 lines, 3- and 4-line initial spaces with printed guides, gothic type, woodcut illustrations, some full-page, several signatures shaved, some marginal repairs to first few leaves, 17-8 repaired, washed, later vellum, yapp edges, 8vo (141 x 95mm.), *Florence*, *Lorenzo Morgiani and Johannes Petri*, 1 January, 1491/92.

\*\*\* First edition of the first illustrated Italian book on Mathematics. The work also includes the first appearance in print of long division, and the first use of the word "zero". The woodcuts include superb decorative borders and a portrait of Pythagoras as well as illustrations of problem-solving. The work, one of the earliest illustrated Florentine incunables, was dedicated to Giuliano de' Medici, the son of Lorenzo the Magnificent (who later became Pope Leo X).

Provenance: Edouard Rahir (1862-1924, leather book label); Piero Ginori Conti (1865-1939, bookplate).

Literature: Tomash & Williams C9; Smith, *Rara arithmetica*, pp.47-49; ISTC ic00034000.

£12,000 - 18,000

71

**Calculating machine.- Hindenburg (Karl Friedrich)** BESCHREIBUNG EINER GANZ NEUEN ART, NACH EINEM BEKANNTEN GESETZE FORTGEHENDE ZAHLEN DURCH ABZÄHLEN ODER ABMESSEN BEQUEM UND SICHER ZU FINDEN, *Gothic letter*, 3 engraved folding plates, lacking tables, contemporary half calf, spine worn, rubbed, preserved in custom drop-back box, [Tomash

& Williams H139; not in VD18], 8vo, *Leipzig*, *Siegfried Leberecht Crusius*, 1776.

£100 - 150

72

**Calculating machines.- Hartree (Douglas Rayner)** CALCULATING MACHINES. RECENT AND PROSPECTIVE DEVELOPMENTS AND THEIR IMPACT ON MATHEMATICAL PHYSICS, FIRST EDITION, *illustrations, perforated blindstamp to title, later boards, original wrappers bound in*, *Cambridge*, 1947 § Comrie (Leslie John) Calculating machines... Being appendix III to L. R. Connor's *Statistics in Theory and Practice*, offprint, *illustrations, original printed wrappers*, 1938 § Hele Shaw (Henry S.) The theory of continuous calculating machines offprint from *Philosophical Transactions of the Royal Society - Part II*, 1885, *illustrations, later wrappers, printed label to upper cover*, 1886, [Tomash & Williams H31, C139 & H97]; and 8 others, similar, 8vo & 4to (11)

£150 - 200

73

**Calligraphy.- Butterworth (Edmond)** YOUNG ARITHMETICIAN'S INSTRUCTOR, CONTAINING SPECIMENS OF WRITING, *engraved throughout, occasional foxing, attractive later red half morocco over contemporary boards*, [Tomash & Williams B306], 4to, *Edinburgh*, *Oliver & Boyd*, 1815.

£150 - 200

74

**Čapek (Karel)** R.U.R. (ROSSUM'S UNIVERSAL ROBOTS). A FANTASTIC MELODRAMA, FIRST AMERICAN EDITION, *half-title, title printed in red and black, 4 plates, original orange cloth, lettered in black, spine slightly discoloured, some light fraying to spine ends, but a sharp and excellent copy overall*, [Origins of *Cyberspace 249*; Tomash & Williams C20], 8vo, *New York*, *Doubleday, Page & Company*, 1923.

\*\*\* First American edition of the book that coined the word "robot".

£150 - 200



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**75**

**Cappel (Jacques)** DE MENSURIS LIBRI TRES, *title with woodcut decoration, woodcut initials, head-pieces and tables, folding woodcut table, modern vellum, printed paper label to spine, [Tomash & Williams C21; VD17 23:237799S], 4to, Frankfurt am Main, Wolfgang Richter & Levinus Hulsius, 1607.*

£150 - 200

**76**

**Casati (Paolo)** FABRICA, ET USO DEL COMPASSO DI PROPORZIONE, DOVE INSEGNA À GLI ARTEFICI IL MODO DI FARE IN ESSO LE NECESSARIE DIVISIONI, E CON VARI PROBLEMI USUALI MOSTRA L'UTILITÀ DE QUESTO STROMENTO, FIRST EDITION, *title with woodcut device, woodcut diagrams, initials, head- and tail-pieces, 4 folding engraved plates, 2ff. errata at end, title with small paper overslip changing "Del Molto" to "Il Molto", small hole at foot through the second half of book, affecting some letters and the foot of two plates, occasional light foxing or minor staining, ink note in a later hand to endpaper, bookseller's printed description to pastedown, contemporary calf, some chipping and wear to extremities, preserved in custom drop-back box, [Riccardi i, 271; Tomash & Williams C32bis], 4to, Bologna, Giovanni Battista Ferroni, 1664.*

\*\*\* A consolidation of Galileo's work on the compass "It not only contains good descriptions of usage, complete with many examples, but also discusses the manufacture of the device with two major foldout diagrams that could be used as patterns for the scales. Unlike many such works that state the method of usage but then give very simple problems involving triangles (for example), Casati provides the reader with realistic problems involving regular shapes" - Tomash & Williams.

£600 - 800

**77**

**Casati (Paolo)** FABRICA, ET USO DEL COMPASSO DI PROPORZIONE, DOVE INSEGNA À GLI ARTEFICI IL MODO DI FARE IN ESSO LE NECESSARIE DIVISIONI, E CON VARI PROBLEMI USUALI MOSTRA L'UTILITÀ DE

QUESTO STROMENTO, FIRST EDITION, *title with woodcut device, woodcut diagrams, initials, head- and tail-pieces, 4 folding engraved plates (with a few neat repairs), 2ff. errata at end, title with small paper overslip changing "Del Molto" to "Il Molto", occasional marginal staining, occasional repairs and restorations to margins and corners, modern vellum, [Riccardi i, 271; Tomash & Williams C32], 4to, Bologna, Giovanni Battista Ferroni, 1664.*

\*\*\* Provenance: Grigorius Vivvarellus (early ink signature to title).

£500 - 700

**78**

**Cavalieri (Bonaventura)** APPENDICE DELLA NUOVA PRATTICA ASTROLOGICA, FIRST EDITION, 2 parts in 1 vol., *woodcut tables, 11ff. folded over at fore-edge, title closely bound at inner margin, touching a few letters, occasional light foxing or browning, minor worming towards end, ink stamps to imprimatur f. verso, modern boards, 12mo, [Riccardi i, 326 (no.7 & 8); Tomash & Williams C45] Bologna, Clemente Ferroni, 1640.*

\*\*\* An appendix to Cavalieri's Nuova prattica astrologica, published in 1639. Contains two sets of logarithmic tables (one trigonometric and one of the natural numbers), with an introduction to their use, together with tables for use in casting horoscopes Cavalieri (1598--1647), one of the most influential Italian mathematicians of the 17th century who also wrote on optics, astronomy and astrology, and was one of the first to recognize the great value of logarithms.

£750 - 1,000

**79**

**Cavalieri (Bonaventura)** TRIGONOMETRIA PLANA, ET SPHAERICA, LINEARIS & LOGARITHMICA, FIRST EDITION, *engraved frontispiece with a personification of Trigonometry, woodcut initials and headpieces, engraved plate (tipped to fore-edge of a8), occasional light foxing or soiling, 20th century vellum-backed boards, [Origins of Cyberspace 3; Tomash & Williams C52], 4to, Bologna, heirs of Benacci, 1643.*

\*\*\* "This is a treatise on plane and spherical



trigonometry with, as was usual for Cavalieri, tables of logarithms. The table combines standard trigonometric values with logarithmic ones in what he terms a Canon Duplex (double table) which was standard for its day" - Tomash & Williams.

£250 - 350

**80**

**Chaulnes (Michel Ferdinand d'Albert)**

NOUVELLE MÉTHODE POUR DIVISER LES INSTRUMENTS DE MATHÉMATIQUE ET D'ASTRONOMIE, FIRST EDITION, 15 engraved plates, plates crudely stitched, contemporary marbled boards, light wear to spine ends, a little rubbed, preserved in custom drop-back box, [Tomash & Williams C75,] folio, [Paris, L. F. Delatours], 1768.

\*\*\* "In this work Chaulnes describes two dividing engines of his invention: one for dividing circles and the other for dividing linear scales. First published in the Description des Arts et Metiers, Volume 13, it appears here separately in a large format... The use of the Chaulnes machine eliminated the need for a highly skilled craftsman when creating precision scales. Chaulnes used microscopes of his own design (also described here) to read the divisions on his scales. He also incorporated a screw drive mechanism to move his engraving tool, and this was the first publication to present to that technique." - Erwin & Tomash.

£250 - 350

**81**

**Chaulnes (Michel Ferdinand d'Albert d'Ailly, duc de)**

NEUE ART, MATHEMATISCHE UND ASTRONOMISCHE INSTRUMENTE ABZUTHEILEN, FIRST GERMAN EDITION, Gothic letter, title with woodcut decoration, woodcut head-piece, 10 edge-mounted folding engraved plates, bookplate to pastedown, later boards, a little browned, preserved in custom drop-back box, [Tomash & Williams C76; VD18 15340570], 4to, Berlin, Joachim Pauli, 1788.

\*\*\* Provenance: "Comes de Solms" (bookplate).

£150 - 200

**82**

**Coggeshall (Henry)** THE ART OF PRACTICAL MEASURING, BY THE SLIDING RULE...ALSO GAUGING; WITH INSTRUCTIONS IN DECIMALS, MR TOWNLEY'S METHOD OF THE LOGARITHMS, AND THE USE OF THE DIAGONAL SCALE APPLIED TO GUNTER'S CHAIN... WHERE TO IS ADDED... THE USE OF SCAMOZZI'S LINES FOR FINDING THE LENGTHS AND ANGLES OF HIPS, RAFTERS, &C. AT ANY PITCH, IN SQUARE, BEVELLING, OR TAPERING FRAMES. BY JOHN HAM, *seventh edition, engraved folding frontispiece and 3 plates, contemporary sheep, rebacked, new endpapers, preserved in custom drop-back box, Edward and Charles Dilly, 1767* § Good (John) Measuring made easy: or, the description and use of Coggeshall's sliding-rule... To which is now added, the description of Scamozzi's lines, with their use in finding the length and angles of rafters, hips, collar-beams &c, *2 engraved folding plates, occasional marginal browning or dampstaining, modern calf, William & J. Mount, Thomas Page and Son, 1760*; The Art of shadows: or, universal dialling, *third edition, 11 engraved folding plates, text closely shaved at head, occasionally affecting pagination, ink name to title, contemporary sheep, lower cover detached, modern label to spine, Mount and Page, 1721, [Tomash & Williams C110, G63 & G60], 8vo (3)*

£200 - 300

**83**

**Compasses.- Phelippeaux (L. M.)** DU COMPAS DE PROPORTION DANS LA PRATIQUE DE LA PERSPECTIVE, OU RECHERCHE DES DIFFERENS CAS DANS LESQUELS L'EMPLOI DU COMPAS DE PROPORTION PEUT ABREGER LES OPERATIONS DE PERSPECTIVE..., *6 engraved folding plates, 20th century half calf by Marc Ollivier, Paris, 1819* § Byrne (Oliver) The Geometry of Compasses, *frontispiece, illustrations, original pictorial cloth, 1877* § Mascheroni (Lorenzo) Géométrie du compas... traduite de l'italien par A.M. Carette, *second edition, half-title, 14 folding engraved plates, spotting, Paris, Bachelier, 1828, [Tomash & Williams P67, B312 & M58]; and another on the same, 8vo (4)*

£150 - 200



# Forum Auctions

**84**

**Computer conferences.- Chu (Jeffrey Chuan)**

PROCEEDINGS OF A SYMPOSIUM ON LARGE SCALE DIGITAL COMPUTING MACHINES, *illustrations, original cloth-backed wrappers, stamp to upper cover, wear to spine*, [Lemont, IL], 1953 § Birkhoff (Garrett) and others. Transactions of the symposium on fluid mechanics and computing, 2 vol., *original cloth*, New York, 1953-54 § Cybernetics. Circular causal, and feedback mechanisms in biological and social systems. Transactions of the sixth conference March 24-25, 1949, New York, *bookplate of Princeton University, library cloth, original wrappers bound in*, New York, 1950, [Tomash & Williams C87, B169, G92 & V33]; and 9 others, conferences and symposia, 8vo (13)  
**£150 - 200**

**85**

**Condillac (Étienne Bonnot de)** LA LANGUE DES CALCULS, OUVRAGE POSTHUME ET ÉLÉMENTAIRE, 2 vol. in 1, FIRST EDITION, *half-title, errata, light marginal browning, modern speckled calf, Paris, Charles Houel*, An VI de la République [1797/98] § Laromiguière (Pierre) Paradoxes de Condillac ou réflexions sur la langue des calculs, overage posthume de cet auteur, *occasional spotting, contemporary wrappers, a little worn*, Paris, Guilleminet, 1805, [Tomash & Williams C166 & L34], 8vo (2)  
**£150 - 200**

**86**

CONGREGATIO MAJOR ACADEMICA BAMBERGENSIS. FONTES BIBLICI, DIVINAE, HUMANA EQ[UE] SCIENTIAE RIVIS SONORI AC DIVITES, 2 parts in 1 vol., *folding engraved frontispiece and 7 folding plates (5 with volvelles), a few ff. closely shaved at upper and lower margins, occasional light foxing, bookplate of the Dukes of Arenberg to pastedown, contemporary speckled calf*, [Tomash & Williams F83; VD17 12:119208Y], Bamberg, Typis Episcopalibus, apud Johann Jakob Immel, 1608 § Muncker (Philipp) De intercalatione variarum gentium, et praesertim Romanorum, libri quatuor, *title with woodcut device, woodcut initials, occasional light foxing, contemporary vellum,*

*printed paper label to spine*, [Tomash & Williams M147], Leiden, Jacobus Hackius, 1680 § Schillgren (Nicolaus) Computus manualis breviter expositus quem favente deo & suffragante ampliss, *folding table, light soiling and marginal browning, disbound and loosely inserted into later marbled wrappers*, [Tomash & Williams Q1], Lund, Habereger, 1726, 8vo (3)

\*\*\* A good set of 3 rare works on calendars.  
**£400 - 600**

**87**

**Conjuring.- Hooper (William)** RATIONAL RECREATIONS, 4 vol., *second edition, 65 engraved folding hand-coloured plates, some offsetting and occasional spotting, contemporary tree calf, rebacked, corners repaired*, [Tomash & Williams H156; Toole Stott 390], 8vo, L. Davis, J. Robson, B. Law & G. Robinson, 1783-1782.

\*\*\* Hand-coloured copies are scarce.  
**£350 - 450**

**88**

**Couffignal (Louis)** THÈSES PRÉSENTÉES A LA FACULTÉ DES SCIENCES DE PARIS... 1RE THÈSE. - SUR L'ANALYSE MÉCANIQUE. APPLICATION AUX MACHINES A CALCULER ET AUX CALCULS DE LA MÉCANIQUE CÉLESTE. 2E THÈSE. - LE COLORIAGE DES CARTES, FIRST EDITION, SIGNED PRESENTATION INSCRIPTION FROM THE AUTHOR TO GABRIEL BERTRAND *to front free endpaper*, Paris, 1938; [Another copy], SIGNED PRESENTATION INSCRIPTION FROM THE AUTHOR TO ÉMILE BOREL *to front free endpaper*, Paris, 1938, *illustrations, original printed wrappers, some light browning to covers, preserved together in custom drop-back box*, [Origins of Cyberspace 282; Tomash & Williams C186], 8vo (2)

\*\*\* "Couffignal started his career as a teacher of mathematics and mechanics at the Ecole des Élèves Ingenieurs Mecaniciens, which is part of the Ecole Navale de Brest. He became interested in the problem of calculation and wrote a thesis on the subject under the direction of Maurice d'Ocagne (who died very shortly after it was accepted in March 1938). This was the first time that the topic of

calculating machines had been accepted for a thesis at the University of Paris." - Tomash & Williams

Gabriel Bertrand (1867-1962, Professor of Biochemistry at the Sorbonne); Émile Borel (1871-1956, mathematician, co-founder in 1928 of the Institut Henri Poincaré, Paris) (presentation inscriptions).

£500 - 700

**89**

**Cunn (Samuel)** A NEW TREATISE OF THE CONSTRUCTION AND USE OF THE SECTOR, CONTAINING, THE SOLUTIONS OF THE PRINCIPAL PROBLEMS BY THAT ADMIRABLE INSTRUMENT IN THE CHIEF BRANCHES OF MATHEMATICKS..., now Carefully Revised by Edmund Stone, *engraved folding frontispiece, woodcut initials, head- and tail-pieces and diagrams, folding engraved plate at rear, 3pp. advertisements, occasional light browning, contemporary calf, gilt, rebacked, blindstamped arms to covers, preserved in custom drop-back box, [Tomash & Williams C210], 8vo, for John Wilcox and Thomas Heath, 1729.*

\*\*\* A treatise on the sector, apparently concocted from lectures given by Cunn, a teacher of mathematics in London, author of some introductory works and interpreter of the mathematics of Newton, Leybourn, and Keill. Its publication was funded by the instrument maker Thomas Heath; a large folding plate depicts a 12-inch brass sector divided by Cunn and Heath. The editor, Edmund Stone, FRS (1700-1768), had written a popular work on the sector (first published in 1721).

£300 - 400

**90**

**De Morgan (Augustus)** AN ESSAY ON PROBABILITIES, AND ON THEIR APPLICATION TO LIFE CONTINGENCIES AND INSURANCE OFFICES, FIRST EDITION, *engraved additional title, contemporary red half morocco, gilt, light rubbing to extremities, 1838* § Brown (Richard) A history of accounting and accountants, NUMBER 57 OF 250 DELUXE COPIES SIGNED BY THE AUTHOR, *portrait frontispiece,*

*plate, original morocco-backed cloth, gilt, t.e.g., others uncut, light rubbing to extremities, Edinburgh, 1905, [Tomash & Williams D34 & B276]; and 3 others, similar, 8vo & 4to (5)*

£120 - 180

**91**

**Dechales (Claude François Millet)** L'ART DE NAVIGER DEMONTRÉ PAR PRINCIPES, & CONFIRMÉ PAR PLUSIEURS OBSERVATIONS TIRÉES DE L'EXPERIENCE, FIRST EDITION, *title with woodcut decoration, woodcut initials, head- and tail-pieces, illustrations and diagrams, folding engraved plate, L1 with tear running into text without significant loss, upper joint cracked but holding firm, book labels to pastedown, contemporary vellum, preserved in custom drop-back box, [Tomash & Williams D23], 4to, Paris, Estienne Michallet, 1677.*

\*\*\* A very good copy of this work in which Deschales outlines the principles of navigation as well as describing "a small counting device with a digital ratchet as input and analog display indicators (much like on a modern gas meter)" - Tomash & Williams.

Provenance: Scheepvaart Museum, Amsterdam (cancelled book label).

£800 - 1,200

**92**

**Dircks (Henry)** THE LIFE, TIMES AND SCIENTIFIC LABOURS OF THE SECOND MARQUIS OF WORCESTER, FIRST EDITION, *plates (1 folding), illustrations, handsome red half morocco, gilt, spine gilt, g.e., [Tomash & Williams S163], 8vo, Bernard Quaritch, 1865.*

£80 - 120

**93**

**Display devices.- Lehmann (Otto)** FLÜSSIGE KRISTALLE SOWIE PLASTIZITÄT VON KRISTALLEN IM ALLGEMEINEN, MOLEKULARE UMLAGERUNGEN UND AGGREGATZUSTANDSÄNDERUNGEN, *plates and illustrations, later cloth, [Tomash & Williams L63], Leipzig, 1904; and another, Cathode Ray Tube Displays, 4to & 8vo (2)*

\*\*\* Otto Lehmann is best known for his discovery of liquid crystals. This work is the



# Forum Auctions

first of two works by the professor on his reported discovery and includes photographs of the crystals through microscopes. Liquid crystals form the basis of modern electronic display systems.

£150 - 200

**94**

**Economics.- Herr (Gottfried)** VERMEHRTES ARITHMETISCHES HAND-BUCH, *Gothic letter, title printed in red and black within a decorative woodcut border, woodcut initials, head- and tail-pieces, tables printed in red and black, lacking engraved additional title, ink stamp to title verso, occasional worming, contemporary blindstamped panelled calf with a hatched design to inner panel, ties defective, worming to covers, spine ends chipped, [Tomash & Williams H123; VD17 14:634793S], folio, Breslau, Gottfried Gründer For The Author, 1653.*

\*\*\* First edition of this rare merchants' manual, including compound interest tables. Provenance: Breslau Centralbibliothek (cancelled ink library stamp).

£800 - 1,200

**95**

**ENIAC.-** MATHEMATICAL TABLES AND OTHER AIDS TO COMPUTATION. A QUARTERLY JOURNAL, no.1-68 in 13 vol., edited by Raymond Clarke Archibald, Derrick Henry Lehmer and others, *ex-library copies with stamps, markings etc., library buckram, [Tomash & Williams M61, A63, C133 and G54; Origins of Cyberspace 777 with vol.14 for 1960], 8vo, Washington DC, National Research Council, 1943-59.*

\*\*\* A good, almost complete, set of this important journal which, "for a time, [it] was the only journal dealing exclusively with computation and computing devices. In its July 1946 issue, it published the landmark article 'The Electronic Numerical Integrator and Computer (ENIAC)' by Herman H. Goldstine and Adele Goldstine, which described in detail the first large-scale electronic computer... The journal was, in its early years, the only venue in which articles and notices relating to computing machinery

and methods could be readily published, and thus it contains many of the seminal papers." (Tomash & Williams)

£500 - 700

**96**

**Ferguson (James)** LECTURES ON SELECT SUBJECTS IN MECHANICS, HYDROSTATICS, PNEUMATICS, AND OPTICS. WITH THE USE OF GLOBES, THE ART OF DIALING, AND THE CALCULATION OF THE MEAN TIMES OF NEW AND FULL MOONS AND ECLIPSES, [&] A SUPPLEMENT TO MR. FERGUSON'S BOOK OF LECTURES, 2 parts in 1 vol., FIRST QUARTO EDITION, *36 engraved folding plates, some offsetting, occasional light foxing or browning, bookplate removed from pastedown, contemporary calf, neatly and sympathetically rebacked, retaining original backstrip, [Tomash & Williams F40 & F41], 4to, for A. Millar, 1764-67*

£300 - 400

**97**

**Ferguson (James)** TABLES AND TRACTS, RELATIVE TO SEVERAL ARTS AND SCIENCES, FIRST EDITION, *3 engraved folding plates (2 drawn by Ferguson after Benjamin Franklin), tables, errata, 20th century half calf, [Tomash & Williams F42], 8vo, A. Millar and T. Cadell, 1767; [Another edition], second edition, 3 engraved folding plates, tables, 1p. advertisements, contemporary calf, preserved in custom drop-back box, [Tomash & Williams F43], W. Strahan, J. and F. Rivington, W. Johnston, T. Longman, and T. Cadell, 1771, 8vo (2)*

£200 - 300

**98**

**Forestani (Lorenzo)** PRATICA D'ARITHMETICA E GEOMETRIA, FIRST EDITION, *title and colophon with woodcut device, woodcut initials, diagrams and illustrations, occasional light foxing, light staining at beginning and end, repaired holes to title, hole to 2F8 with minor loss to text (words supplied in ink by an early hand), small marginal repairs, pulling to early gatherings, contemporary morocco, gilt, new label to spine, new endpapers, [Riccardi, i 478; Tomash & Williams F86], small 4to, Venice,*



# Forum Auctions

*Giorgio Varisco, 1603.*

\*\*\* Rare. We can trace only 1 other complete copy at auction.

Provenance: Di Filippo di Paolo Sforzi da Pescia (ink inscriptions); Biblioteca Magliabechiana, Florence (ink stamp to title)  
**£500 - 700**

**99**

**Galgemair (Georg)** ORGANON LOGIKON, *fine woodcut title, 4 folding engraved plates, one with short tear, woodcut illustrations, one with folding flap on C4, 2 leaves working loose, some foxing, browning and light water-staining, late 17th century ownership inscription on front free endpaper, later marbled boards, worn, folding cloth drop-back box, [Tomash & Williams R72], 4to, Frankfurt, Johann Weh, 1654.*

\*\*\* On the construction and use of three different instruments, a proportional compass, and two types of sector.  
Provenance: Johan Wilhelm Vigniltzon, 1699 (signature on front free endpaper).

**£1,500 - 2,000**

**100**

**Galgemair (Georg)** KURTZER GRÜNDTLICHER WARHAFFTER GEBESSERTER UND VERMEHRTER UNDERRICHT, ZUBERAITUNG UND GEBRAUCH, DESS CIRCKELS SCHREGMESS, UND LINIAL IN WAHRER PROPORTION SCHÖNE MATHEMATISCHE KUNSTSTÜCK, DURCH UNGLAUBLICHE BEHENDE VORTHEIL AN DIE HAND GEBENDT ... DURCH WEILAND DEN HOCHGELEHRTEN HERIN JOANNEM REMELIUM ... IM 1624. JARS, ANIETZO ABER ZUM VIERDTEN MAL AUFFGELEGT UND GEDRUCKT, *Gothic letter, engraved title, 4 engraved folding plates, woodcut initials, head- and tail-pieces and diagrams, C3 trimmed at foot, some occasional light browning, later vellum, [Tomash & Williams R73; VD17 23:323920V], small 4to, Augsburg, Johann Wehe, 1655.*

\*\*\* "This edition, of which there are two copies in the collection, is the same text as the first edition. The title page has been changed to better represent the content-two major problems of the day, dialing and gauging, are featured prominently. Neither

the edition of the previous year nor these two volumes contain figures numbered 2 and 3, an omission that appears to be deliberate" - Tomash & Williams.

**£1,000 - 1,500**

**101**

**Galgemair (Georg)** KURTZER GRÜNDTLICHER WARHAFFTER GEBESSERTER UND VERMEHRTER UNDERRICHT, ZUBERAITUNG UND GEBRAUCH, DESS CIRCKELS SCHREGMESS, UND LINIAL IN WAHRER PROPORTION SCHÖNE MATHEMATISCHE KUNSTSTÜCK, DURCH UNGLAUBLICHE BEHENDE VORTHEIL AN DIE HAND GEBENDT ... DURCH WEILAND DEN HOCHGELEHRTEN HERIN JOANNEM REMELIUM ... IM 1624. JARS, ANIETZO ABER ZUM VIERDTEN MAL AUFFGELEGT UND GEDRUCKT, *Gothic letter, engraved title, 4 engraved folding plates, woodcut initials, head- and tail-pieces and diagrams, C3 illustration with folding flap, foxing and browning, minor worming to beginning and end, 20th century half vellum, modern paper label to spine, [Tomash & Williams R73 bis; VD17 23:323920V], small 4to, Augsburg, Johann Wehe, 1655.*

\*\*\* "This edition, of which there are two copies in the collection, is the same text as the first edition. The title page has been changed to better represent the content-two major problems of the day, dialing and gauging, are featured prominently. Neither the edition of the previous year nor these two volumes contain figures numbered 2 and 3, an omission that appears to be deliberate" - Tomash & Williams.

**£1,000 - 1,500**

**102**

**Galilei (Galileo)** TRACTATUS DE PROPORTIONUM INSTRUMENTO QUOD MERITO COMPENDIUM UNIVERSAE GEOMETRIAE DIXERIS, [translated by Matthias Bernegger], *second Latin edition, woodcut illustration to title, engraved folding plate (short repaired tear to inner margin), woodcut initial, diagrams and head-piece, browning, heavy in places, later calf, sympathetically rebacked, new spine label detached and loosely inserted, rubbing to extremities, [Tomash & Williams G18], 4to,*



# Forum Auctions

Strassburg, David Hautt, 1635.

\*\*\* Second edition of Bernegger's Latin translation of Galileo's *Le Operazioni del compasso geometrico* (1606), substantially a reissue of the sheets of the previous edition (Strassburg, 1612), with only the initial quire (title and dedication) reset. The folding engraving is struck from the same plate used for the 1612 first edition.

£750 - 1,000

**103**

**Galilei (Galileo)** *LE OPERAZIONI DEL COMPASSO GEOMETRICO, ET MILITARE, third edition, title with woodcut device, woodcut initials, diagrams, head- and tail-pieces, folding engraved plate, later blue boards, rebacked, new printed labels to upper cover and spine, rubbing to extremities, [Riccardi i, 506; Tomash & Williams G13], 4to, Padua, Paolo Frambotto, 1649.*

\*\*\* The third edition of Galileo's first published work with an enlarged version of the plate that first appeared in the second edition of 1640.

£750 - 1,000

**104**

**Galilei (Galileo) and Baldessare Capra.** *USUS ET FABRICA CIRCINI CUIUSDAM PROPORTIONIS, PER QUEM OMNIA FERETUM EUCLIDIS, TUM MATHEMATICORUM OMNIUM PROBLEMATA FACILI NEGOTIO RESOLVUNTUR, Bologna, heirs of Dozza, 1655 BOUND WITH Difesa di Galileo Galilei... Contro alle calunie & imposture di Baldessar Capra, Bologna, heirs of Dozza, 1655, together 2 works in 1 vol., woodcut decorations to titles, woodcut initials, head-pieces and diagrams, light marginal dampstaining towards end, contemporary vellum, rebacked, endpapers and pastedowns reusing manuscript documents on paper (dated Florence, 1743), preserved in custom drop-back box, [Tomash & Williams C23 & G6], 4to.*

\*\*\* A fragment extracted from the first volume of the 1655-1656 Dozza edition of Galileo's work consisting of Capra's work on the use and construction of proportional compasses and Galileo's resulting attack on

Capra.

£750 - 1,000

**105**

**Galilei (Galileo)** *USUS ET FABRICA CIRCINI CUIUSDAM PROPORTIONIS, PER QUEM OMNIA FERETUM EUCLIDIS, TUM MATHEMATICORUM OMNIUM PROBLEMATA FACILI NEGOTIO RESOLVUNTUR, Bologna, heirs of Dozza, 1655 § Capra (Baldessare) Difesa di Galileo Galilei... Contro alle calunie & imposture di Baldessar Capra, Bologna, heirs of Dozza, 1655, woodcut decorations to titles, woodcut initials, head-pieces and diagrams, uniform modern blind-stamped calf, preserved in custom drop-back boxes, [Tomash & Williams C24 & G7], 4to (2)*

\*\*\* Fragments extracted from the first volume of the 1655-1656 Dozza edition of Galileo's work consisting of Capra's work on the use and construction of proportional compasses and Galileo's resulting attack on Capra

£500 - 700

**106**

**Galilei (Galileo)** *LE OPERAZIONI DEL COMPASSO GEOMETRICO, ET MILITARE, title with woodcut decoration, woodcut initials and diagrams, folding engraved plate, lacking engraved frontispiece (offsetting visible on title-page), B1 torn at head with slight loss of text, first few ff. reinforced in gutter, modern calf, preserved in modern drop-back box, [Riccardi i, 518; Tomash & Williams G14], 4to, Bologna, Heirs of Dozza, 1656.*

\*\*\* An extract from Dozza's complete works of Galileo.

£250 - 350

**107**

**Galilei (Galileo)** *OPERE, 3 vol., half-titles, vol. I with additional title printed in red & black with engraved allegorical device for Florence, engraved portrait of the author, folding engraved plate, numerous diagrams and illustrations, woodcut decorations and initials, vol. 3 T3v with printing flaw, small stain on T4r, contemporary vellum, morocco labels to spines, spines darkened a little rubbed, 4to,*

[*Riccardi I 520; Tomash & Williams G10*], 4to, Florence, *Tartini Giovanni Gaetano and Santi Franchi*, 1718.

\*\*\* Second edition of Galileo's works.

£1,000 - 1,500

## 108

**Gemma Frisius.** DE ASTROLABO CATHOLICO, FIRST EDITION, *title with woodcut device, woodcut illustrations, diagrams and full-page coat of arms, 2 folding tables, occasional light foxing, fore-edge closely shaved, occasionally touching printed side-notes, contemporary vellum, modern printed spine label detached and loosely inserted, lacking ties, [Tomash & Williams G37]*, 8vo, Antwerp, *J. Steelsius [& J. Grapheus]*, 1556.

\*\*\* *De Astrolabo Catholico* was unfinished at Gemma Frisius' death in 1555 and was completed by his son Cornelius (1535-1578) and published in the following year. Gemma had founded a workshop which produced globes and mathematical instruments and was noted for his skills as an instrument-maker by Tycho Brahe, among others. In the present work he describes the construction and use of an astrolabe of his own devising and includes sections on eclipses and their observation, sundials and horoscopes. Provenance: "ad usus Gasparii servanii" (old ink inscription on title).

£600 - 800

## 109

**Gesualdo (Filippo)** PLUTOSOFIA... NELLA QUALE SI SPIEGA L'ARTE DELLA MEMORIA CON ALTRE COSE NOTABILI PERTINENTI, TANTO ALLA MEMORIA NATURALE, QUANTO ALL'ARTIFICIALE, FIRST EDITION, *woodcut device on title, woodcut initials, head- and tail-piece, full-page woodcut illustration, tables, small paper flaw in margin of ¶¶1, woodcut trimmed at outer and lower margin, later patterned paper boards with manuscript fragment along spine, [Edit16 20728; Tomash & Williams G41]*, 8vo, Padua, *Paolo Meietti*, 1592.

\*\*\* Gesualdo's treatise on mnemonics, based on lectures he gave at Palermo.

Provenance: Inscriptions on inside front

cover: "Nell'elenco de libri rari V.3.74.4" and "Del V. seminario di S. Gio. Bat. in Varallo".

£750 - 1,000

## 110

**Gillispie (Charles Coulston, editor)** DICTIONARY OF SCIENTIFIC BIOGRAPHY, FIRST EDITION, 18 vol. including supplements, *diagrams, original cloth, dust-jackets to all but final 2 vol., 4to*, New York, 1970-1990.

£100 - 150

## 111

**Girard (Albert)** TABLES DES SINUS, TANGENTES, & SECANTES SELON LE RAID DE 100000 PARTIES, *second edition, title with woodcut device, woodcut initials and diagrams, occasional foxing, minor worming to lower margin towards end, contemporary vellum, light staining to upper cover, [Tomash & Williams G45]*, 12mo, The Hague, *Jacob Elzevier*, 1629.

\*\*\* These tables were first printed by Jacob Elzevir, 1626, and were revised and enlarged by an "Appendice de la Trigonometrie" in 1627. This is a reprint of that 1627 edition.

£350 - 450

## 112

**Globes.- Dunn (Samuel)** THE DESCRIPTION AND USE OF THE UNIVERSAL PLANISPHERES, OR TERRESTRIAL AND CELESTIAL GLOBES IN PLANO, *second edition, occasional ink notes in a contemporary hand, spotting, contemporary boards, chipping to spine and corners, Printed and published for the author & W. Owen*, 1759 § *Ferguson (James) Lectures on Select Subjects in Mechanics, Hydrostatics, Pneumatics, and Optics: With the Use of the Globes, the Art of Dialing, and the Calculation of the Mean Times of New and Full Moons and Eclipses*, FIRST EDITION, *23 engraved plates, occasional spotting, ink name to title, contemporary calf, rebounded, extremities rubbed*, A. Millar, 1760, [*Tomash & Williams D72 & F39*], 8vo (2)

£200 - 300

## 113

**Globes.- Harris (John)** THE DESCRIPTION AND

USES OF THE CELESTIAL AND TERRESTRIAL GLOBES;  
AND OF COLLINS'S POCKET QUADRANT, FIRST EDITION,  
*engraved plate with duplicate from another  
copy supplied as frontispiece, 4pp.*

*advertisements, 20th century calf, E.*  
*Midwinter for D. Midwinter and T. Leigh, 1703*  
§ Harris (Joseph) *The Description and Use of  
the Globes and the Orrery. To which is  
prefix'd, by way of introduction, a brief  
account of the solar system, second edition, 7  
folding engraved plates (1 torn at margin and  
fold), contemporary calf, splitting to head of  
joints, preserved in custom drop-back box,*  
*Thomas Wright and Richard Cushee, 1732,*  
[Tomash & Williams H20 & H23], 8vo (2)  
£300 - 400

## 114

**Globes.- Hatton (Edward)** A MATHEMATICAL  
MANUAL OR DELIGHTFUL ASSOCIATE CONTAINING A  
DESCRIPTION OF THE CELESTIAL GLOBE . . .  
TERRESTRIAL GLOBE, ... ALL KINDS OF MAPS ETC., FIRST  
EDITION, *woodcut initials, head- and tail-pieces  
and diagrams, advertisement f., bookplates,  
contemporary panelled calf, spine rubbed,  
corners a little bumped, preserved in custom  
drop-back box, [Tomash & Williams H77], 8vo,*  
*S. Illidge, 1728.*

\*\*\* Provenance: John Rolle, 1st Baron Rolle  
(1750-1842, MP and subject of the satirical  
*Rolliad*); John Leigh Smeathman Hatton (1865-  
1933, mathematician and Principal of East  
London College) (bookplates).

£300 - 400

## 115

**Globes.- Lefebvre (Jean)** DESCRIPTION ET USAGE  
DU PLANISPHERE, *title with woodcut decoration,  
woodcut initials and head-pieces, modern  
boards, [Tomash & Williams F50], 4to, Paris,*  
*widow of Antoine Lambin, 1700.*

\*\*\* Rare. Jean Lefebvre was an instrument  
maker in Paris on the Quay des Morfondus.

£100 - 150

## 116

**Globes.- Martin (Benjamin)** THE DESCRIPTION  
AND USE OF BOTH THE GLOBES, THE ARMILLARY  
SPHERE, AND ORRERY, *engraved frontispiece and*

*3 plates, light worming, mostly restricted to  
outer margin, ink ownership inscription to  
front free endpaper, contemporary tree calf,  
neatly and sympathetically rebacked,  
retaining original backstrip, [Tomash &  
Williams M43], 8vo, for the Author, [1762].*

\*\*\* Provenance: Thomas Lane (ink inscription  
dated 1862).

£300 - 400

## 117

**Globes.- Moxon (Joseph)** A TUTOR TO  
ASTRONOMIE AND GEOGRAPHIE: OR AN EASIE AND  
SPEEDY WAY TO KNOW THE USE OF BOTH THE  
GLOBES, CELESTIAL AND TERRESTRIAL, FIRST EDITION,  
*engraved additional pictorial title, woodcut  
initials and head-pieces, woodcut and  
engraved diagrams and illustrations,  
occasional light spotting or browning, later  
vellum, spine repaired, a little soiled,  
preserved in custom drop-backed box,*  
*[Tomash & Williams M140; Wing M3021],  
small 4to, Joseph Moxon, 1659.*

\*\*\* With the following issue points: A variant  
of the title page without "of" before spherical  
triangles; Numbers "2 ... 6." are enclosed  
within braces on title page; the words  
"astronomical ... triangles" are gathered by a  
left brace; With added engraved title (A1v);  
Caption title on 2C4v: "Ancient stories of the  
several stars ... collected from Dr. Hood"  
Provenance: Charles E. Riviere and Henry  
Branch (ink inscriptions).

£500 - 700

## 118

**Good (John)** THE ART OF SHADOWS: OR, UNIVERSAL  
DIALLING, *second edition, 11 engraved folding  
plates, hour scale pasted on rear endpaper,  
browned, contemporary panelled calf,  
sympathetically rebacked, [Tomash &  
Williams G59], 8vo, J. Robinson and others,*  
1711.

\*\*\* Provenance: "Robert Kyffin" and "R.  
Kyffin 1712" (ink inscriptions to title page and  
endpaper).

£150 - 200





# Forum Auctions

**119**

**Grollier de Serviere (Gaspard)** RECUEIL D'OUVRAGES CURIEUX DE MATHEMATIQUE ET DE MECANIQUE, OU DESCRIPTION DU CABINET DE MONSIEUR GROLLIER DE SERVIERE, FIRST EDITION, *title printed in red and black, engraved and woodcut initials, head- and tail-pieces, 85 engraved plates (numbered 1-88, but nos. 39, 48 and 76 not called for), errata and instructions to the binder at end, occasional light browning, eighteenth-century calf, gilt, arms of Dumont family to covers, chipping and wear to head of spine and foot of upper joint, [Tomash & Williams G90], 4to, Lyon, David Forey, 1719.*

\*\*\* A description of the collection of mechanical instruments formed, and predominantly made, by the author's grandfather, Nicolas Grollier de Serviere (1593-1686). He was a mirror-maker and descendant of Jean Grolier the bibliophile. The collection included clocks, bridges, locks, water-raising devices, mills, military engines, a revolving bookcase, wheelchair etc.

£750 - 1,000

**120**

**Grollier de Serviere (Gaspard)** RECUEIL D'OUVRAGES CURIEUX DE MATHEMATIQUE ET DE MECANIQUE, *third edition, revised, half-title, title with woodcut decoration, engraved and woodcut initials, head- and tail-pieces, 93 engraved plates (numbered 1-88, with additional plates 31A, 52A, 56A, 72A, and 84A-D, and no plates 39, 48 or 76 (not called for)), occasional light foxing or browning, contemporary calf, some splitting to joint ends, preserved in custom drop-back box, [Tomash & Williams G91], 4to, Paris, C. A. Jombert, 1751.*

\*\*\* Although described as the "seconde edition" on the title, this is in fact the third.

£600 - 800

**121**

**Gunter (Edmund)** THE WORKS...CONTAINING THE DESCRIPTION AND USE OF HIS SECTOR, CROSS-STAFF, BOW, QUADRANT, AND OTHER INSTRUMENTS, 6 parts in 1, *fourth edition, additional engraved*

*title, 2 plates, volvelle on p.64 supplied in facsimile, woodcut diagrams and illustrations, 2 advertisement leaves at end, 17th century inscriptions to title and penultimate leaf, later boards with modern calf spine, edges of covers worn, modern cloth drop-back box, [Tomash & Williams G103; Wing G2240], 4to, by W.L. for Francis Eglesfield, 1662.*

\*\*\* Gunter was an English clergyman, mathematician, geometer and astronomer, who in 1619 became Gresham Professor of Astronomy. He was primarily interested in the application of mathematics to real world tasks. The volume includes discussion of Gunter's chain, quadrant and scale, which were employed in astronomical, navigational and dialling calculations. The work was partly edited and published by William Leybourn, best known for his 1669 work on sundials and astrolabes. Leybourn had also published second and third editions of the Gresham Professor Samuel Foster's work on dialling and includes in the present volume sections devoted to Foster's work on instruments 'now published from his manuscripts'.

Provenance: "Moray" (old signature on penultimate leaf); old inscription on title "Ex libris Bib. [?] C R M Ednb".

£350 - 500

**122**

**Hainlin (Johann Jacob)** SYNOPSIS MATHEMATICA UNIVERSALIS, OR A BRIEF SYSTEM OF THE MATHEMATICS, FOR YOUNG STUDENTS... BY VENTERUS MANDEY, *title in red and black, engraved portrait frontispiece and 5 folding plates, 2 folding tables, 9pp. advertisements (final f. torn), occasional light browning and marginal damp-staining, contemporary panelled calf, joints cracked, spine ends chipped, spine with horizontal crack, [Tomash & Williams M29], 8vo, for the Author, 1709.*

\*\*\* Rare, ESTC lists 3 copies only.

"Mandey was a London teacher of mathematics... This is not an original work but rather a compilation of translations of the work of others - perhaps from Mandey's own book collection. The majority are based on the work of Johann Jacob Heinlin [sic], but



# Forum Auctions

Mandey also mentions [other authors]." - Tomash & Williams.

£350 - 450

**123**

**Hammond (John)** THE PRACTICAL SURVEYOR, second edition, engraved frontispiece and 12 plates (fraying and tearing), occasional foxing and browning, contemporary calf, rubbed and a little worn, [Tomash & Williams H12], 8vo, T. Heath, 1731.

£100 - 150

**124**

**Harris (Joseph)** THE DESCRIPTION AND USE OF THE GLOBES, AND THE ORRERY, FIRST EDITION, 7 folding engraved plates, dampstaining to first few ff. and final plate, title with woodcut decoration, woodcut initials, head- and tail-pieces, contemporary panelled calf, spine ends a little chipped, preserved in custom drop-back box, [Tomash & Williams H22], 8vo, for Thomas Wright and Richard Cushee, 1731.

\*\*\* An expansion of Harris's 1703 work, including a lengthy description of the orrery. Provenance: Edward S. Gowers (modern stamp and signature).

£300 - 400

**125**

**Hedraeus (Benedictus)** NOVA ET ACCURATA ASTROLABII GEOMETRICI STRUCTURA ... NEC NON, QUADRANTIS ASTRONOMICI AZIMUTHALIS, title printed in red and black with woodcut device, woodcut initials, head- and tail-pieces, illustrations and diagrams, 5 folding woodcut plates (printed on later, 18th century paper), modern calf, some spotting to title, [Tomash & Williams H94], small 8vo, Leiden, Willem Christiaens van der Boxe, 1643.

\*\*\* Rare. Hedraeus was a professor of mathematics at the University of Uppsala and an instrument maker. He is known to have constructed an observatory near Uppsala (evidently the first in Sweden)" - Tomash & Williams.

£500 - 700

**126**

**Henisch (Georg)** COMMENTARIUS IN SPHAERAM PROCLI DIADOCHI, FIRST EDITION, text of Proclus in parallel Greek and Latin, title with woodcut device, woodcut initials, 2 folding tables, errata f. at end, dampstaining to foot of title and first 2 gatherings, tables on 2V1-2X2 shaved at fore edge, contemporary French olive morocco, gilt, arms of Charles de Valois, duc d'Angoulême to covers, and his CC monogram to spine, corners and joints rubbed, [Tomash & Williams H103; VD17 23:289511T], 4to, Augsburg, David Franck, 1609.

\*\*\* Includes several mentions of America, Columbus and Vespucci.

Provenance: Charles de Valois, duc d'Angoulême (gilt arms to covers)

£1,500 - 2,000

**127**

**Henrion (Denis)** USAGE DU COMPAS DE PROPORTION, FIRST EDITION, title with woodcut device, woodcut initials, head-pieces, illustrations and diagrams, double-page engraved plate, damp-staining to upper margin, heavier at beginning, contemporary vellum, modern paper label to spine, some staining to covers, wear to upper fore-edge, [Tomash & Williams H109], 8vo, Paris, Michel Daniel, 1618.

\*\*\* Rare, we can trace only 1 other copy of this first edition at auction in the last 40 years. Usage du Compas introduced the sector into France and would prove hugely popular, running into numerous editions.

£1,000 - 1,500

**128**

**Henrion (Denis)** USAGE DU COMPAS DE PROPORTION, second edition, title with woodcut device, woodcut initials, head-pieces, diagrams and illustrations, occasional light dampstaining, ink name to foot of title, contemporary vellum, portion of loss to lower cover, preserved in modern drop-back box, [Tomash & Williams H111], 8vo, Paris, Fleury Bourriquant, 1624.

£750 - 1,000



# Forum Auctions

**129**

**Henrion (Denis)** LOGOCANON, OU REGLE PROPORTIONNELLE: SUR LAQUELLE SONT APPLIQUÉES PLUSIEURS LIGNES & FIGURES, DIVISÉES SELON DIVERSES PROPORTIONS & MESURES, EN FAVEUR DE CEUX QUI SE DELECTENT EN LA PRACTIQUE DES DIVINES MATHEMATIQUES, FIRST EDITION, *title with woodcut illustration, woodcut initials, head-pieces and diagrams, double-page folding engraved plate (with ink spot), modern vellum, modern printed label to spine, [Tomash & Williams H107], 8vo, Paris, F. Bourriquant pour l'Autheur, 1626.*

\*\*\* "This is an extract of material from Henrion's 1623 work, *Mémoires mathématiques*. It discusses the construction and use of a number of different scales illustrated in a folding plate. These include a logarithmic scale, tangents, sines and several that are usually found on sectors: lines of polygons, metals, etc. There is also a complex chart of angular grids to be used with some of the problems" - Tomash & Williams.

£500 - 700

**130**

**Henrion (Denis)** USAGE DU COMPAS DE PROPORTION, *title with woodcut decoration, woodcut initials, head-pieces, illustrations and diagrams, double-page engraved plate, occasional very minor worming to lower margin, ink names to title, endpaper and A2, contemporary vellum, a little soiled, modern printed label to spine, small point of loss to lower joint, [Tomash & Williams H112], 8vo, Paris, Jean Bourriquant, 1626.*

\*\*\* "There were two editions produced in 1626, one published by Jean Bourriquant and another by Charles Hulpeau. Each has a slightly different title page, but they are otherwise identical" - Tomash & Williams. Provenance: Adrien Anseau of Tournai; Jean M. della Paolera (ink inscriptions).

£500 - 700

**131**

**Henrion (Denis)** USAGE DU COMPAS DE PROPORTION, *third edition, title with woodcut decoration, woodcut initials, head-pieces,*

*illustrations and diagrams, double-page engraved plate, occasional light dampstaining or browning, ink stamp to endpaper, contemporary calf, spine ends chipped, 8vo, [Tomash & Williams H113], 8vo, Paris, Jean Bourriquant, 1626.*

\*\*\* Provenance: "JNR" (ink stamp to endpaper).

£400 - 600

**132**

**Henrion (Denis)** L'USAGE DU COMPAS DE PROPORTION, *fourth edition, double-page engraved plate, title with woodcut ornament, woodcut initials, head-pieces, diagrams and illustrations, a few ff. shaved at head affecting headlines, occasional minor damp-staining to head, 20th century vellum, printed paper label to spine, [Tomash & Williams H114], 8vo, Paris, for the Author, 1631.*

£200 - 300

**133**

**Henrion (Denis)** L'USAGE DU COMPAS DE PROPORTION, *engraved folding plate, title with woodcut ornament, woodcut initials, head-pieces, diagrams and illustrations, occasional damp-staining, contemporary vellum, some light staining, [Tomash & Williams H115], 8vo, Rouen, Denis du Chesne, 1664.*

£200 - 300

**134**

**Henrion (Denis)** L'USAGE DU MECOMETRE, QUI EST UN INSTRUMENT GEOMETRIQUE, AVEC LEQUEL ON PEUT TRES-FACILEMENT MESURER TOUTES SORTES DE LONGUEURS & DISTANCES VISIBLES, *second edition, 2 engraved folding plates, the first torn and repaired, woodcut diagrams, browning to text, last 2 ff. repaired at head, touching headline, contemporary calf, spine gilt, [Tomash & Williams H118], 8vo, Paris, Jean d'Houry, 1677.*

\*\*\* The mécomètre was a combined sighting and calculating instrument.

£500 - 700

**135**

**Henrion (Denis)** USAGE DU COMPAS DE



# Forum Auctions

PROPORTION, *engraved frontispiece and 2 identical folding plates, woodcut initials, head-pieces and diagrams, without errata, a few ink notes to margins, contemporary calf, spine ends chipped*, [Tomash & Williams H116], 8vo, Paris, the author and R.J.B. de La Caille, 1681.

£150 - 200

**136**

**Henrion (Denis)** L'USAGE DU COMPAS DE PROPORTION, *engraved frontispiece and folding plate (some creasing with tear to outer margin), woodcut initials, head-pieces and diagrams, errata, occasional spotting or staining, minor worming to head, contemporary calf, rubbed, preserved in custom drop-back box*, [Tomash & Williams H117], 8vo, Paris, Nicolas Bion, 1681.

£150 - 200

**137**

**Holder (William)** A DISCOURSE CONCERNING TIME, WITH APPLICATION OF THE NATURAL DAY, AND LUNAR MONTH, AND SOLAR YEAR, AS NATURAL, *second edition, title within ruled border, occasional light damp-staining to foot, 20th century calf*, [Tomash & Williams H149], 8vo, J. Heptinstall for Phil. Monkton, 1701.

£150 - 200

**138**

**Holtzapffel (Charles)** A NEW SYSTEM OF SCALES OF EQUAL PARTS, APPLICABLE TO VARIOUS PURPOSES OF ENGINEERING, ARCHITECTURE AND GENERAL SCIENCE, FIRST EDITION, *folding plate, original cloth, a little faded, spine ends and corners a little bumped*, 1838 § Oliver (Henry Kemble) An elementary treatise on the construction and use of the mathematical instruments usually put into portable cases, *6 folding engraved plates, errata, foxing and browning, contemporary cloth-backed boards, paper label to upper cover, spine chipped at head, preserved in custom drop-back box*, Boston, Perkins & Marvin, 1830 § Chase (Stuart) Men and machines, *illustrated by W.T. Murch, original cloth, dust-jacket, spine ends and corners a little chipped*, New York, Macmillan,

1929, [Tomash & Williams H151, O30 & C69]; and 13 others, practical mathematics and industry, 8vo & folio (16)

£200 - 300

**139**

**Hopton (Arthur)** A CONCORDANCY OF YEARES. CONTAINING A NEW, EASIE AND MOST EXACT COMPUTATION OF TIME, ACCORDING TO THE ENGLISH ACCOUNT, *mostly black letter, title within elaborate ornamental woodcut border, woodcut initials and head-pieces, illustrations including full-page chart with signs of the zodiac, bookplate to pastedown, contemporary limp vellum, light soiling, lacking ties*, [Tomash & Williams H163], 8vo, Nicholas Okes for Thomas Adams, 1615.

\*\*\* The second, enlarged edition of this popular work on astronomy and astrology. Provenance: "John Hopton of Can-Frome in the County of Hereford" (armorial bookplate).

£400 - 600

**140**

**Horology.- D[erham] (W[illiam])** THE ARTIFICIAL CLOCK-MAKER. A TREATISE OF WATCH, & CLOCK-WORK, 2 parts in 1 vol., *second edition, 2 folding engraved plates, folding leaf of printed music, 2 folding tables, bookplate and ink notes to pastedown and endpapers, contemporary calf, sympathetically rebacked, 1 corner worn*, [Bromley, The Clockmaker's Library 257; Tomash & Williams D44; Wing D1100], James Knapton, 1700.

\*\*\* Second edition of Derham's first book, a treatise explaining how clocks are made and calibrated so as to keep accurate time, with a brief history of time-keeping devices. Newly printed in the "Supplement" are "Mr. Flamsteed's equation tables", further commentary on the Danish astronomer Olaus Roemer's geared jovilade (from details given to the author by Flamsteed), instructions on "A nice way to correct pendulum watches" and "To make a telescope to keep a watch by the fixed stars". The book appeared in German in 1708 and in French in 1731. Library of Calwich [stet] Hall, Staffordshire, seat of the Viscounts Granville (sale by Thos.



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Winstanley & Son, 1844)

Provenance: Earls Granville, Calwich Hall, Staffordshire ("Calwich Library" bookplate, Calwich sale by Thos. Winstanley & Son, 1844); William Godfrey (ink inscription).

£400 - 600

**141**

**Horology.- Ferguson (James)** SELECT

MECHANICAL EXERCISES: SHEWING HOW TO CONSTRUCT DIFFERENT CLOCKS, ORRERIES AND SUN-DIALS ON PLAIN AND EASY PRINCIPALS, FIRST EDITION, *9 folding engraved plates (1 torn and repaired), occasional light finger-soiling, ink names to pastedowns, contemporary sheep, joints cracked but holding firm, [Baillie p.294; Bromley, The Clockmaker's Library 319; Tomash & Williams Add14], 8vo, W. Strahan and T. Cadell, 1773*

\*\*\* Provenance: Samuel Whitworth; James Whitworth ?Luftey (ink inscriptions)

£150 - 200

**142**

**Horology.- Martinelli (Domenico)** HOROLOGI ELEMENTARI DIVISI IN QUATTRO PARTI. NELLA PRIMA PARTE FATTI CON L'ACQUA. NELLA SECONDA CON LA TERRA. NELLA TERZA CON L'ARIA, FIRST EDITION, *title with woodcut decoration and within ornamental border, woodcut initials, head- and tail-pieces, 16 full-page engraved illustrations, Q2 neatly repaired at top corner, occasional light staining or browning, later card boards, light staining and rubbing to covers, new endpapers, [Riccardi i, 123; Tomash & Williams M53], 4to, Venice, Bortolo Tramontino, 1669.*

\*\*\* A treatise on clocks driven by water, sand, air and fire.

£750 - 1,000

**143**

**Horology.- Pennington (Robert)** THE

DESCRIPTION OF A SECTOR... OF GREAT USE TO ALL CLOCK AND WATCH MAKERS, FIRST EDITION, *folding engraved frontispiece, title and A4 folding at foot, both with notes in a contemporary hand, modern stiff wrappers, [Baillie p.308; Tomash & Williams P35; not in Bromley, The*

*Clockmaker's Library], 8vo, Richardson & Urquhart, 1780.*

\*\*\* Rare, ESTC lists 4 copies only. The note to foot of the title reads: "The author of this Pamphlet resided at Camberwell and was the ingenious mechanist who constructed Mr Mudge's time-piece & made Drawings for Mr M's description of it."

£150 - 200

**144**

**Hulsius (Levinus)** OCULARIS ET RADICALIS DEMONSTRATIO USUS QUADRANTIS, FIRST EDITION, *Gothic letter, title with engraved vignette, woodcut initials, head- and tail-pieces, 2 folding double-page engraved plates, F1&2 upper corner restored, [Tomash & Williams H185; VD16 H5879], Nuremberg, Christophor Lochner, for the author, 1596 BOUND WITH Brentel (Georg) QUADRANTIS ASTRONOMICI ET GEOMETRICI UTILITATES. EIN TRACTAT VOM ASTRONOMISCHEN UND GEOMETRISCHEN QUADRANTEN, FIRST EDITION, Gothic letter, title within elaborated woodcut border, text within woodcut border throughout, woodcut illustrations, a few ff. closely shaved, lacking errata f., [Tomash & Williams B244; VD17 3:000106H], Lauingen, Jacob Winter, 1611, together 2 works in 1 vol., occasional browning or light soiling, later red vellum, lacking ties, light soiling to upper cover, small 4to.*

\*\*\* The first works details the use of the geometric square in military and civilian tasks, the second discusses astronomical and surveying applications for a quadrant.

£750 - 1,000

**145**

**Hutton (Charles)** MISCELLANEA MATHEMATICA: CONSISTING OF A LARGE COLLECTION OF CURIOUS MATHEMATICAL PROBLEMS, AND THEIR SOLUTIONS, *woodcut diagrams, occasional light foxing, modern red panelled calf, G. Robinson and R. Baldwin, 1775 § Taylor (John) Thesaurarium mathematicæ: or the treasury of the mathematicks, engraved frontispiece and 8 folding plates, contemporary panelled calf, rebounded, J. L. [John Leake] for W. Freeman,*

1707, [Tomash & Williams H194 & T15]; and 4 others English mathematics, 8vo (6)  
**£200 - 300**

**146**

**Hutton (Charles)** A MATHEMATICAL AND PHILOSOPHICAL DICTIONARY, 2 vol., FIRST EDITION, woodcut diagrams and illustrations, 37 engraved plates, contemporary half calf, rebaked, wear to corners, new endpapers, [Tomash & Williams H192], 4to, J. Johnson, 1796-1795.  
**£150 - 200**

**147**

**Iamblichus.** IN NICOMACHI GERASENI ARITHMETICAM INTRODUCTIONEM ET DE FATO LIBRO DUO. NUNC PRIMUM EDITUS... A SAMUELE TENNULIO, ACCEDIT JOACHIMI CAMERARII EXPLICATIO IN DUOS LIBROS NICOMACHI, parallel text in Latin and Greek, title printed in red and black, engraved additional title, woodcut initials and diagrams, without blank leaf 2a4, occasional browning, heavy in places, dampstaining towards beginning, inscriptions to endpapers, contemporary vellum, some staining, [Tomash & Williams I1, C17], 4to, Arnhem, Wilhelm Wier, 1668.  
 \*\*\* Iamblichus's commentary on Nicomachus's treatise on the mystical and divine properties of numbers, the frontispiece depicts several Greek mathematicians.  
 Provenance: Stefan ?Russovitz (pencil inscription in Latin and Cyrillic at end); a gift from Dominus Vaihel, Leipzig, 1768 (inscription on inside front cover).

**£250 - 350**

**148**

**Instruction manuals.- Curtis (George)** A TREATISE ON GUNTER'S SCALE, AND THE SLIDING RULE, spotting, lacking front free endpaper, contemporary sheep, rubbed and scuffed, preserved in custom drop-back box, Whitehall, NY, Adams, 1824 § Kentish (Thomas) A Treatise on a Box of Instruments and the Slide-Rule, second edition, folding frontispiece, original cloth, spine faded, spine ends chipped, 1847 § Heather (J. F.) A Treatise

on Mathematical Instruments, original limp cloth, rebaked, 1849, [Tomash & Williams C215, K20 & H89]; and 3 others, similar, 8vo (6)  
**£80 - 120**

**149**

**Jacob (Simon)** EIN NEW UND WOHL GEGRUNDT RECHENBUCH, AUFF DEN LINIEN UN[D] ZIFFERN, SAMPT DER WELSCHEN PRACTIC UND ALLERLEY VORTHEILEN, NEBEN DER EXTRACTION RADICUM, UN[D] VON DEN PROPORTIONEN, MIT VILEN LUSTIGEN FRAGEN UND AUFGABEN [&C.], FIRST EDITION, Gothic letter, title printed in red and black with woodcut vignette, woodcut printer's device on colophon, occasional browning, title and colophon a little frayed, contemporary blind-stamped pigskin over wooden boards with metal clasps, a little rubbed and soiled, preserved in custom drop-back box, [Smith, Rara Arithmetica, p.295; Tomash & Williams J4; VD16 J29], 4to, Frankfurt, Georg Rab for Sigmund Feyerabend and Simon Hüter, 1565.  
 \*\*\* Simon Jacob was a well-known reckoning master who had published an arithmetic at Frankfurt in 1557. The present edition is a revised and expanded version, published by his brother shortly after his death.  
 Provenance: Reuter (bookplate to title verso).  
**£1,000 - 1,500**

**150**

**Jacquard weaving.- Biehler (Tobias)** PRACTISCHE ANLEITUNG FÜR JEDER ZEICHNUNG ZUR JAQUARD-MASCHINE, autograph manuscript, lithographed presentation title to Otto, King of Greece, manuscript dedication leaf and autograph manuscript signed by Biehler of his foreword or "General Remarks" ("Allgemeine Anmerkungen"), loosely inserted, 3ff. with 48 gilt-edged silk swatches laid down, 90 leaves of text and elaborate diagrams, some full-page, 46 weaving patterns drawn on thin card laid down, many on large folding sheets with silk swatches and captions facing, several stubs at start ?indicating removal of early ff. although the whole seemingly complete, contemporary green velvet blocked in gilt, preserved in custom drop-back box, [Tomash

& Williams Add5], *oblong folio*, Vienna, 1839; sold not subject to return.

\*\*\* A superb manuscript on the Jacquard loom including 12 pages showing the punched cards representing weaving patterns and swatches of the resulting silk cloth. This use of replaceable punched cards to control a sequence of operations is considered an important step in the history of computer programming.

"This large work is a description of how to set up a Jacquard loom. It begins with a description of the weaving process and the notation system used to describe a pattern. This is followed by an in-depth description of the Jacquard loom with very detailed full-page diagrams of the mechanisms. The final, and largest, part of the work is a sampler of different weavings, including their initial design documents and patterns together with swatches from the actual cloth." - Tomash & Williams.

£3,000 - 4,000

## 151

**Jevons (William Stanley)** ON THE MECHANICAL PERFORMANCE OF LOGICAL INFERENCE, in *Philosophical Transactions of the Royal Society*, Vol. 160, part II, pp. 497-518, *largely unopened, the odd tear to margin, 25 lithographed plates (of which 3 related to Jevons), foxing to plates, original printed wrappers, upper cover detached, cracking to spine, some marking and soiling, preserved in custom drop-back box, [Origins of Cyberspace 330; Tomash & Williams J15], 4to*, 1870.

\*\*\* The first edition of Jevons' landmark paper presenting his "logical piano" (so called due to its appearance), the first machine capable of solving problems at superhuman speed and a key precursor of the modern computer.

£300 - 400

## 152

**Jevons (William Stanley)** ON A GENERAL SYSTEM OF NUMERICALLY DEFINITE REASONING, *offprint from Memoirs of the Literary and Philosophical Society of Manchester*, series 3, vol. 4, *original printed wrappers*, 1870; *The Principles of Science, frontispiece, stamps and bookplate of Allan Library, City Road, original cloth, soiling to lower cover*, 1887; *Elementary Lessons in Logic, new edition, original cloth*, 1880, [Tomash & Williams J14, J18 & J12]; and 3 others by the same, 8vo (5)

£80 - 120

## 153

**Jevons (William Stanley)** THE PRINCIPLES OF SCIENCE, A TREATISE ON LOGIC AND SCIENTIFIC METHOD, 2 vol., FIRST EDITION, *frontispiece, occasional foxing or marginal browning, vol. 1 upper hinge broken and lacking front free endpaper, vol. 2 upper hinge starting and with portion of front free endpaper torn away, contemporary ink ownership inscriptions, bookplate, original red-brown cloth, spine ends and corners bumped and worn, splitting to joints, rubbed, preserved in custom drop-back boxes, [Tomash & Williams J17], 8vo*, 1874.

\*\*\* Rare, especially so in the original cloth. "This is Jevons' major work. It contains all his advances to the development of logic set in the framework of the philosophy of science. He insisted that absolute certainty of observation is impossible for a human, and thus all logical deductions from laboratory experiments must be considered true only within a certain probability. He was an early explorer of the methodology of measurement and associated errors." - Tomash & Williams.

£150 - 200

## 154

**Kästner (Abraham Gotthelf)** GESCHICHTE DER MATHEMATIK: SEIT DER WIEDERHERSTELLUNG DER WISSENSCHAFTEN BIS AN DAS ENDE DES ACHTZEHNEN JAHRHUNDERTS, 4 vol., *each with second title "Geschichte der Künste und Wissenschaften", Gothic letter, occasional light foxing, ink stamps to titles and*



# Forum Auctions

*endpapers, contemporary boards, rubbed, [Tomash & Williams K6], 8vo, Göttingen, Johann Georg Rosenbusch, 1796-1800.*

\*\*\* Provenance: "Herzogl. Sächs. Lyceum zu Eisenberg"; "E Bibliotheca Böttigeri" (ink stamps).

£100 - 150

**155**

**Kepler (Johannes)** CHILIAS LOGARITHMORUM AD TOTIDEM NUMEROS ROTUNDOS, 1624; Supplementum Chilidis Logarithmorum, 1625, together 2 works in 1, FIRST EDITIONS, *folding table, woodcut diagrams, initials and head- and tail-pieces, browned, later vellum-backed decorative boards, a few leaves frayed, some repairs, [Tomash & Williams K24 & K26], 4to, Marburg, Caspar Chemlin, 1624-25.*

\*\*\* "Kepler had seen John Napier's *Mirifici logarithmorum canonis descriptio* (1614) as early as 1617; but he did not study the new procedure carefully until by chance, the following year, he saw Napier's tables reproduced in a small book by Benjamin Ursinus. Kepler then grasped the potentialities offered by the logarithms; but lacking any description of their own construction, he re-created his own tables by a new geometrical procedure" (DSB VII, p.304).

£8,000 - 12,000

**156**

**Kepler (Johannes)** TABULAE RUDOLPHINAE, QUIBUS ASTRONOMICAE SCIENTIAE, TEMPORUM LONGINQUITATE COLLAPSAE RESTAURATIO CONTINETUR, FIRST EDITION, *additional engraved title becoming loose, L2/L3 double-page letterpress table with partial hand-colouring, folding manuscript table of logarithms bound in at end, a few margins repaired or remargined, including engraved title at foot and folding margin of k3, with some letters of side-notes supplied in manuscript, some worming, mostly marginal, a few gatherings (including "Sportula", sig. q, issued in 1629) browned, later half calf, rubbed, [Tomash & Williams K27; Houzeau & Lancaster 12754; Norman 1208], folio, Ulm, Jonas Saur, 1627.*

\*\*\* "The foundation of all planetary calculations for over a century." (Sparrow, *Milestones of Science*). Tycho Brahe asked Kepler to complete his Rudolphine tables, shortly before the former's death in 1601 - the resultant work, based on Kepler's discovery of the laws of planetary motion and on his introduction to logarithms, produced far more accurate positions than those in earlier tables. This copy includes the 4-leaf "Sportula genethliacis missa" published in 1629, but does not have Bartsch's appendix or the world map, both issued after 1627.

£7,000 - 10,000

**157**

**Kepler (Johannes) and Jacob Bartsch.** TABULAE MANUALES LOGARITHMICAE AD CALCULUM ASTRONOMICUM, *title within ruled border, woodcut initials and head-pieces, tables, ink stamp to title verso, bookplate removed from front pastedown, contemporary vellum, [Tomash & Williams K28; VD17 12:196196Z], 8vo, Strasbourg, Johannes Pastorius for Theodor Lerse, 1700.*

\*\*\* The second and first obtainable edition of the tables used in calculating Kepler's Rudolphine Tables of 1627. Kepler's son in law, Jacob Bartsch published the first edition after Kepler's death but the run was extremely limited due to financial issues with only one (defective) copy recorded.

Provenance: Bibliothek TU (Technische Universität) Dresden (cancelled ink stamp).

1,500 - 2,000

**158**

**Klügel (Georg Simon)** MATHEMATISCHES WÖRTERBUCH, 7 vol. (including 2 supplement vol.), FIRST EDITION, *Gothic letter, numerous engraved folding plates, ink stamps and inscriptions to titles, contemporary half calf, gilt spines, vol.2 spine repaired at head, a little rubbed, [Tomash & Williams K52], 8vo, Leipzig, Schwickert, 1803-36.*

\*\*\* Provenance: "Bucherei der Eisleber Bergschule" (ink stamp).

£100 - 150





# Forum Auctions

**159**

**Lacroix (Sylvestre Francois)** TRAITE DU CALCUL DIFFERENTIEL ET DU CALCUL INTEGRAL - [VOL. III: TRAITE DES DIFFERENCES ET DES SERIES, FAISANT SUITE AU TRAITE DU CALCUL DIFFERENTIEL ET DU CALCUL INTERGRAL], 3 vol., FIRST EDITION, *vol. 2 & 3 half-titles, 7 folding engraved plates, 2 folding printed tables in vol.2, occasional foxing or browning, ink stamps to titles and half-titles, contemporary half calf, rubbed, preserved in custom drop-back boxes, [Tomash & Williams L10 & L11], 4to, Paris, J.B.M. Duprat, 1797-1800.*

\*\*\* "This monumental work constituted a clear picture of mathematical analysis, documented and completely up to date. While Lacroix followed Euler on many points, he incorporated the various advances made since the middle of the eighteenth century. The treatise is a very successful synthesis of the works of Euler, Lagrange, Laplace, Monge, Legendre, Poisson, Gauss, and Cauchy..." - DSB.

Provenance: Bibliothek des T[echnischen] & A[dmistrativen] Militär-Comité; K.K. Artillerie Comité, Vienna (ink stamps).

£200 - 300

**160**

**Lambert (Johann Heinrich)** ZUSÄTZE ZU DEN LOGARITHMISCHEN UND TRIGONOMETRISCHEN TABELLEN, FIRST EDITION, *woodcut title decoration and head-pieces, small manuscript slip pasted in, occasional foxing, modern boards, [Tomash & Williams L20; VD18 12463442], Berlin, Haude and Spener, 1770 § Grüneberg (Christian) Pandora Mathematicarum Tabularum, occasional browning, contemporary vellum, soiled, lacking ties, [Tomash & Williams G94; VD17 39:115087Q], Frankfurt am Main, Christoph Zeitler, 1684; and another, similar by Schulze, [Tomash & William S65], 8vo (3)*

\*\*\* A good group of German logarithmic and trigonometric tables.

£150 - 200

**161**

**Lansberghe (Philip van)** TABULÆ MOTUUM CÆLESTIUM PERPETUÆ; EX OMNIUM TEMPORUM OBSERVATIONIBUS CONSTRUCTÆ TEMPORUMQUE OMNIUM OBSERVATIONIBUS CONSENTIENTES. ITEM NOVÆ ET GENUINÆ MOTUUM CÆLESTIUM THEORICÆ & ASTRONOMICARUM OBSERVATIONUM THESAURUS, *elaborate engraved title depicting the author along with other noted figures from the fields of astronomy and mathematics, woodcut initials, head- and tail-pieces, diagrams and illustrations, engraved portrait of the author, folding table, book label to pastedown, contemporary boards, [Tomash & Williams L25], Middleburg, Zacharias Romanus, 1632.*

\*\*\* The Horblit copy of this set of astronomical tables, popular for their ease of use.

Provenance: Harrison Horblit (1912-1988, book label).

£750 - 1,000

**162**

**Le Gendre (François)** L'ARITHMETIQUE EN SA PERFECTION, MISE EN PRATIQUE SELON L'USAGE DES FINANCIERS, BANQUIERS, ET MARCHANDS, *second edition, woodcut title ornament, woodcut initials, head-pieces and diagrams, occasional ink notes in a contemporary hand to margins, 3A4 with portion of margin excised, occasional light damp-staining to margins, bookplate to pastedown, contemporary calf, spine ends and corners a little chipped and worn, upper joint cracked but holding firm, [Tomash & Williams L58], 4to, Paris, Autheur & Cardin Besongne, 1663.*

\*\*\* Provenance: P. Mendle (bookplate).

£200 - 300

**163**

**Leibniz (Gottfried Wilhelm)** ESSAIS DE THEODICEE, ODER BETRACHTUNG DER GUETIGKEIT GOTTES..., FIRST GERMAN EDITION, *engraved frontispiece, title in red and black, folding engraved plate of author's calculator, lacking the engraved portrait of Leibniz and the list of his works, light browning, contemporary vellum, [Tomash & Williams L67; VD18 11190809], 8vo, Amsterdam, Cornelius*



# Forum Auctions

*Boudestein*, 1720.

\*\*\* As well as containing a German translation of *Essais de Theodecee sur la bonte de Dieu, la liberte de l'homme et l'origine de mal*, first published in Amsterdam in 1710, this work includes a short assertion of Leibniz's priority over Newton in the invention of calculus, a brief description of the binary system and an account in Latin of the Leibniz calculator.

£1,000 - 1,500

**164**

**Leybourn (William)** THE ART OF DIALLING, PERFORMED GEOMETRICALLY... ARITHMETICALLY... INSTRUMENTALLY, FIRST EDITION, *engraved portrait, folding plate and 1 illustration, woodcut head-piece and diagrams, ink erasure on title, first gathering soiled, contemporary calf, spine and corners neatly and sympathetically repaired, preserved in custom drop-back box*, [Tomash & Williams L89; Wing L1900], 4to, S. A. and B. G., 1669.

\*\*\* This issue has "dialling," in line 2 of title, and the imprint date 1669; another issue has "dialling:" and is undated.

Provenance: John Harwood, 1701 and Chaloner Greville (ink inscriptions); Greville Mairis Livett (bookplate).

£500 - 700

**165**

**Leybourn (William)** PANORGANON: OR, AN UNIVERSAL INSTRUMENT, PERFORMING ALL SUCH CONCLUSIONS GEOMETRICAL AND ASTRONOMICAL AS ARE USUALLY WROUGHT BY THE GLOBES, SPHERES, SECTORS, QUADRANTS, [&C.], FIRST EDITION, *engraved portrait frontispiece and 2 folding plates, woodcut initials, head-pieces and diagrams, marginal browning and occasional chipping, occasional light marking or soiling, modern panelled calf*, [Tomash & Williams L104; Wing L1928], small 4to, William Birch, 1672.

\*\*\* *The Panorganon* describes a quadrant which Leybourn had himself designed, though he acknowledged that he owed much to the manuscript notes of Samuel Foster, professor at Gresham College.

Provenance: John Gardiner, William Green and Doubleday Auborn (early ink inscriptions).

£500 - 700

**166**

**Logarithms.-** TREATISE OF THE CONSTRUCTION OF LOGARITHMS (A): TO WHICH ARE ADDED, TABLES OF LOGARITHMS, SINES AND TANGENTS. FROM THE ENCYCLOPAEDIA, *tables, contemporary boards, rebacked, corners a little worn, Philadelphia*, 1802 § Maseres (Francis) Elements of plane trigonometry. In which is introduced, a dissertation on the nature and use of logarithms, *woodcut decoration to title, woodcut initials, head- and tail-pieces, 13 engraved folding plates, armorial bookplate to pastedown, contemporary calf, sympathetically rebacked, T. Parker for T. Payne and J. Whiston and B. White*, 1760, [Tomash & Williams E9 & M59], 4to & 8vo (2)

\*\*\* The first is the article on logarithms from Dobson's *Encyclopedia or a Dictionary of Arts, Sciences, and Miscellaneous Literature*. The author of the second was an amateur mathematician, who took up the practice of law, and was appointed baron of the exchequer in 1760. His *Scriptores Logarithmici* in six quarto volumes (1791-1807) reprinted several of the older publications on logarithms.

£150 - 200

**167**

**Logarithms and tables.- Byrne (Oliver)** PRACTICAL, SHORT AND DIRECT METHOD OF CALCULATING THE LOGARITHM OF ANY GIVEN NUMBER, *occasional foxing, original cloth, minor bumping to spine ends and corners, New York*, 1849 § Young (J. R.) An elementary essay on the computation of logarithms, *modern calf-backed boards, John Souter*, 1830 § Lowan (Arnold Noah) The computation laboratory of the National Bureau of Standards, *presentation copy inscribed on the upper wrapper "With the compliments of the author", original stapled wrappers, New York, Scripta Mathematica*, 1949 § Reissi (Cornelius August von) Tafeln der Chorden für alle Winkel des Quadranten zum Gebrauche,



# Forum Auctions

*original printed wrappers, preserved in custom drop-back box, St Petersburg, Kaiserlichen General-Stabs, 1817, [Tomash & Williams B316, Y6, L136 & R69]; and 10 others, 8vo & 4to (14)*

£200 - 300

**168**

**Logarithms and tables.- Jacobi (Carl Gustav Jacob)** CANON ARITHMETICUS SIVE TABULAE QUIBUS EXHIBENTUR PRO SINGULIS NUMERIS PRIMIS, FIRST EDITION, *later wrappers, uncut and unopened, preserved in custom drop-back box, [Tomash & Williams J6], 4to, Berlin, Typis Academicis, 1839.*

\*\*\* First edition of Jacobi's work on primitive roots.

£100 - 150

**169**

**Logic.- De Morgan (Augustus)** FORMAL LOGIC: OR, THE CALCULUS OF INFERENCE, NECESSARY AND PROBABLE, FIRST EDITION, *occasional foxing, ink ownership and gift inscriptions to endpapers and title, original cloth, rebacked, preserving original backstrip, corners a little worn, Taylor and Walton, 1847; On the symbols of logic, the theory of the syllogism, and in particular of the cupola, and the application of the theory of probabilities to some questions of evidence, offprint from Transactions of the Cambridge Philosophical Society, vol. 9, part 1., title with printed 'From the Author' notice to head, creasing, modern marbled boards, morocco label to upper cover, Cambridge, Pitt Press by John W. Parker, 1850, [Tomash & Williams D35 & D37]; and another by the same, 8vo (3)*

\*\*\* "[The first mentioned] is the work in which DeMorgan took the first steps to codify logic into an algebraic system. He was not entirely successful, and it was George Boole who devised the first really workable system a few years later. In his research, DeMorgan had consulted the Scottish philosopher Sir William Hamilton on the history of logic, and Hamilton later accused him of plagiarizing his idea of a qualified predicate. His reply to this charge was printed in one of his regular

Athenaeum magazine columns and in his book A budget of paradoxes. An account of this public dispute is given in the appendix to this work. It was this controversy that brought George Boole into the field and eventually resulted in the creation of Boolean algebra." - Tomash & Williams.

£150 - 200

**170**

**Logic.- Whately (Richard)** ELEMENTS OF LOGIC, FIRST EDITION, *pencil notes at front, bookplates of Edwin Wilkins Field and John Sparrow to pastedown, modern half morocco, 1826 § Couturat (Louis) The algebra of logic, FIRST EDITION IN ENGLISH, original cloth, ink stain to lower cover, Open Court, 1914, [Tomash & Williams W39 & C191]; and 3 others, similar, 8vo (5)*

£80 - 120

**171**

**Longomontanus (Christian Sørensen)** ASTRONOMIA DANICA... CUM APPENDICE DE ASSCITITIIS COELI PHAENOMENIS, NEMPE STELLIS NOVIS ET COMETIS, FIRST EDITION, 2 parts in 1 vol., *woodcut device on title, woodcut initials, diagrams and illustrations, some worming at beginning and end, occasional light spotting or staining, bookplate to pastedown, worming to covers, [Tomash & Williams L129] Amsterdam, Willem Jansz Blaeu, 1622.*

\*\*\* "Longomontanus proved to be the ideal assistant to Brahe and took over much of his work after he died. Although Brahe had made careful and complete observations, it remained for Longomontanus to present them in this treatise as an integrated system. This work, although based on the erroneous Tyconic theory, was very well accepted and was reprinted in 1640 and 1663. "It is of particular significance that the work contains numerous tables calculated by the method of prosthaphaeresis (here called prosthaphaereseon). Prosthaphaeresis, (from the Greek words for addition and subtraction) is one of the standard computational shortcuts in use before the invention of logarithms" - Tomash & Williams.



# Forum Auctions

Provenance: "P. H." (initials on bookplate).

£1,500 - 2,000

**172**

**Mackay (Andrew)** THE COMPLETE NAVIGATOR, FIRST EDITION, THE DEDICATION COPY WITH AN INK INSCRIPTION "FROM THE AUTHOR" TO PRINCE WILLIAM HENRY, DUKE OF CLARENCE *to endpaper, 7 engraved plates, tables and diagrams, 3pp. advertisements, lacking half-title, light offsetting, occasional light foxing or browning, modern morocco-backed boards, [Tomash & Williams M9], 8vo, 1804.*

£250 - 350

**173**

**Magini (Giovanni Antonio)** TABULA TETRAGONICA, SEU QUADRATORUM NUMERORUM CUM SUIS RADICIBUS, *title with engraved vignette, woodcut initials and head-pieces, tables and diagrams, occasional spotting or browning, 20th century boards, light wear to spine, [Edit16 24192; Riccardi ii, 66; Tomash & Williams M17], 4to, Venice, G. B. Ciotti, 1592.*  
\*\*\* A separate issue of the tables that are part of Magini's *De planis triangulis* that appeared in the same year, these are tables of squares, which before logarithms enabled the performance of complex calculations.  
Provenance: Pietro Riccardi (1828-1898), historian of mathematics (library label to pastedown).

£150 - 200

**174**

**[Marcel (Guillame)]** CHRONOLOGICAL TABLES OF EUROPE; FROM THE NATIVITY OF OUR SAVIOUR TO THE YEAR 1726... CONTRIV'D IN A SMALL COMPASS FOR THE POCKET, *47 engraved plates, 35 printed on one side only (of which 2 are folding) and 12 printed on recto and verso, contemporary vellum, gilt, B. & B. Barker, 1740 § [Tailfer (Robert)] True and correct tables of time: calculated for the old stile for 784 years viz. from A.D. 1300, to 2083, both inclusive; and for the new stile, from its commencement viz. 1582 to 2083 inclusive, being 501 years, engraved throughout including allegorical frontispiece, contemporary calf, rubbed and*

*scuffed, upper joint split at foot, 1736 § Wetherald (Rowland) The perpetual calculator: or, time's universal standard, folding table, title and final f. browned and soiled, contemporary calf, worn, rebacked, Newcastle, I. Thompson & Co., 1760, [Tomash & Williams P19; T4; W36], oblong 12mo & 8vo (3)*

£150 - 200

**175**

**Marinoni (Giovanni Jacopo de) DE** ASTRONOMICA SPECULA DOMESTICA ET ORGANICO APPARATU ASTRONOMICO LIBRI DUO, FIRST EDITION, *engraved frontispiece (slightly water-stained), title in red and black with engraved vignette of a plan of Vienna, 4 plates printed recto and verso, one with tear just encroaching on plate-mark, 44 folding plates, illustrations, some light offsetting, later green half morocco over marbled boards, modern cloth drop-back box, [Tomash & Williams M37; Riccardi ii, 119], folio, Vienna, Leopold Johann Kaliwoda, 1745.*  
\*\*\* LAVISHLY PRODUCED WORK DESCRIBING THE ASTRONOMICAL INSTRUMENTS IN MARINONI'S PRIVATE OBSERVATORY. "One of the most exquisitely illustrated astronomical works ever printed" (Kenney). Includes the so-called culminatorium, Marinoni's wall quadrant, the quadrans ampliatus and the micrometer. Marinoni (1676-1755) studied in Vienna and became imperial mathematician and teacher in astronomy to the Empress Maria Theresa, to whom this work is dedicated.

Provenance: Marchese Bourbon di Monte, di Petrella (armorial bookplate lettered "Ex Libris Petrellianis").

£3,000 - 4,000

**176**

**Marinoni (Giovanni Jacopo de) DE RE** ICHNOGRAPHICA, FIRST EDITION, *engraved frontispiece, title in red and black with engraved vignette depicting a plan of Vienna, 3 double-page engraved maps, 2 double-page plates, engraved illustrations, many full-page, errata leaf, staining towards end, small ink stamps to title and plate versos, one on title partially erased causing small hole,*



# Forum Auctions

*contemporary sheep, spine gilt, extremities worn, modern cloth drop-back box, [Tomash & Williams M38; Riccardi ii, 119], 4to, Vienna, Leopold Johann Kaliwoda, 1751.*

\*\*\* Marinoni was Imperial Mathematician and Director of the Academy for Geometry and Military Science in Vienna. Handsomely produced work on architectural surveying.

£1,500 - 2,000

**177**

**Martin (Benjamin)** LOGARITHMOLOGIA; OR, THE WHOLE DOCTRINE OF LOGARITHMS, COMMON AND LOGICAL, IN THEORY AND PRACTICE, 2 parts in 1 vol., *large folding engraved plate (torn along fold), advertisement f. at end of each part, occasional light browning, modern calf-backed boards, [Tomash & Williams M44, Wellcome IV, p.64], 8vo, for J. Hodges, 1740-1739.*

£200 - 300

**178**

**Martin (C. François)** POIDS ET MESURES DE LA VILLE DE MARSEILLE, *2 folding tables, 2 regulateurs printed on yellow card in pocket at rear, one large, one small, title and small regulateur signed, tables, contemporary boards, Marseilles, Requier, 1807; Martin (C. François) LE PARFAIT RÉGULATEUR, FIRST EDITION, cardboard régulateur inserted in pocket at front, errata, contemporary stiff blue marbled wrappers, rubbed, Toulon, P.J. Calmen, 1807, [Tomash & Williams M46 & M45 bis], 8vo (2)*  
\*\*\* A series of conversion tables, for use in conjunction with the scales included here.

£150 - 200

**179**

**Martin (C. François)** LE PARFAIT RÉGULATEUR, FIRST EDITION, *woodcut decoration to title, tables, metal régulateur inserted in front pocket, errata at end, contemporary stiff blue wrappers, rubbed and worn, [Tomash & Williams M45], 8vo, Toulon, P.J. Calmen, 1807.*

£100 - 150

**180**

**Mascheroni (Lorenzo)** LA GEOMETRIA DEL COMPASSO, FIRST EDITION, *14 folding engraved plates, occasional foxing or dampstaining, contemporary wrappers, some creasing, a few small chips to extremities, uncut, [Tomash & Williams M56], 8vo, Pavia, heirs of Pietro Galeazzi, 1797.*

\*\*\* First edition of this work in which "Mascheroni proved that all Euclidean constructions can be made with compasses alone-that is without using a straight edge." - Tomash & Williams.

£150 - 200

**181**

**Mascheroni (Lorenzo)** GEOMETRIE DU COMPAS. OUVRAGE TRADUIT DE L'ITALIEN PAR A.M. CARETTE, FIRST EDITION IN FRENCH, *half-title, 14 engraved folding plates, 4pp. advertisements, occasional scatter spotting, contemporary calf, a little rubbed and scuffed, [Tomash & Williams M57], 8vo, Paris, chez Duprat, 1798.*

£100 - 150

**182**

**Medler (Nicolaus)** FACILIMA ET EXACTISSIMA RATIO EXTRAHENDI RADICEM QUADRATAM ET CUBICAM... IN GRATIAM STUDIOSAE JUVENTUTIS AEDITA, *title within elaborate woodcut border, with final blank f., the odd spot or patch of light staining, leaves neatly mounted on stubs, modern morocco-backed boards, [Smith, Rara arithmetica, pp.223; Tomash & Williams M79; VD16 M1885] small 8vo, Wittenberg, Veit Creutzer, 1550.*

\*\*\* A reprint of the last part of the second edition of Medler's Rudimenta Arithmeticae practicae, also printed in 1550.

£200 - 300

**183**

**Mensuration.- Bernard (Edward)** DE MENSURIS ET PONDERIBUS ANTIQUIS LIBRI TRES. EDITIO ALTERA, PURIOR ET DUPLO LOCUPLETIOR, *3 folding engraved plates, title with woodcut vignette, woodcut initials, later morocco, gilt, spine faded, g.e., [Tomash & Williams B140; Wing B1987], 8vo, Oxford, Sheldonian Theatre,*



# Forum Auctions

1688.

£100 - 150

**184**

**Mensuration.- Henisch (Georg)** DE ASSE ET PARTIBUS EIUS, 2 folding tables, title with woodcut device, woodcut initials, 20th century antique-style calf, gilt, [Tomash & Williams H102], 8vo, Augsburg, David Franck, 1606.

£100 - 150

**185**

**Mensuration.- Malthus (Thomas Robert)** PARALLEL CHAPTERS FROM THE FIRST AND SECOND EDITIONS OF AN ESSAY ON THE PRINCIPLE OF POPULATION, occasional foxing, original cloth, New York, 1895 § Adams (John Quincy) Report of the secretary of state, upon weights and measures, FIRST EDITION, folding tables, browning, ink inscription to head of title, 20th century half calf, Washington, DC, Gales and Seaton, 1821, [Tomash & Williams M27 & A12]; and 2 others, similar, 8vo (2)

£100 - 150

**186**

**Mensuration.- Nystrom (Johan Vilhelm)** PROJECT OF A NEW SYSTEM OF ARITHMETIC, WEIGHT, MEASURE AND COINS, PROPOSED TO BE CALLED THE TONAL SYSTEM WITH SIXTEEN TO THE BASE, PRESENTATION COPY WITH INK INSCRIPTION "TO THE LIBRARY OF THE FRANKLIN INSTITUTE WITH THE AUTHOR'S BEST REGARDS" to front free endpaper and signed bookplate to pastedown, folding plate (a little torn), library stamps, library cloth, Philadelphia, 1862 § Bowring (Sir John) The Decimal System in Numbers, Coins, and Accounts, plates, original cloth, spine ends repaired, Nathaniel Cooke, 1854, [Tomash & Williams N51 & B218] § Coli (Gaudenzio) Trattato elementare del sistema metrico decimale, Bologna G. Monti, 1859 BOUND WITH Coli (Gaudenzio) Il nuovo abbaco ovvero primi elementi intorno al sistema metrico decimale ad uso delle scuole elementari-minori, Bologna, Giacomo Monti, 1859 AND Tabelle di ragguaglio della moneta Romana e l'Italiana e del peso Romana col metrico con tavole ed esempi per facilitarne i conteggi, Bologna,

Marsigli e Rocchi, 1859 AND Tabelle di ragguaglio fra la moneta Romana e l'Italiana e fra la moneta Toscana e l'Italiana e viceversa, Bologna, Marsigli and Rocchi, 1860 AND Zavaglia (Sebastino) Ragguaglio fra tutte le misure metriche decimale autorizzate con decreto 8 Ottobre 1859 e le misure Bolognese e viceversa coi piu facili modi di riduzione disposti per ordine alfabetico con alcune applicazioni utili alle arte industriali, Bologna, Tipografia Scienze, 1860 AND Ragguaglio fra le nuove e antiche misure lineari, agrimensorie e cubiche non che per li pesi per uso del dipartimento del reno. Con una tavola di ragguaglio delle misure lineari di diversi dipartimenti. In execution dell' articolo 13 della legge 27 Ottobre 1803, Bologna, Marsigli, 1860 AND Conteggio sino a N. 50 per ciascheduna moneta che ha corso legale nello Stato Pontificio secondo il chirografo di S.S. Papa Gregorio XVI, Bologna, Stamperia della Colomba, 1860 AND Tabelle di ragguaglio del peso Romana e del Bolognese col metrico e viceversa. Con tavole ed esempi per facilitarne i conteggi. Aggiuntovi uno specchio comparato di tutte le misure metriche delle Bolognesi, Bologna, Marsigli and Rocchi, 1861 AND Giornata per l'anno, 1861 AND L (F. M.) Principi elementari d'aritmetica compendiate da F.M.L. Bologna, Antonio Chierici, together 10 works in 1 vol., with an additional four folding printed plates or tables, one folding manuscript table and one manuscript page, original wrappers, later boards, rebounded, [Tomash & Williams C119, C118, R34, R33, Z5, R31, R24, R32, R25 & F1]; and 4 others, the metric and decimal systems, 8vo & folio (7)

£200 - 300

**187**

**Mensuration.- Zobel (Johann G.) and J. Muller.** BESCHREIBUNG EINER FLÄCHEN-BERECHNUNGS UND THEILUNGS-MASCHINE, 3 folding engraved plates, later boards, a little chipped, preserved in custom drop-back box, [Tomash & Williams Z9], 4to, Munich, Joseph Lindauer, 1815.

\*\*\* Rare.

"Nothing is known of the authors other than

that Zobel had the title of trigonometrist to the king and was apparently working for the Bavarian tax authorities while Müller was a mechanical craftsman who built the instrument described here.

When Bavaria was attempting to reform its tax system it became obvious that the existing land surveys were out of date and that the measurement of irregular plots of land was the root of the problem of creating accurate assessments. This problem was remedied by a new survey and the use of an integrating machine to determine the areas. The machine apparently worked by dividing irregularly shaped plots into small slices whose areas could then be easily added up. This is essentially an analog of the mathematical procedure known as Simpson's Rule for integrating functions." - Tomash & Williams.

£100 - 150

**188**

**Mensuration.- Integragraphs.- Abdank-Abakanowicz (Bruno)** LES INTÉGRAPHES: LA COURBE INTÉGRALE ET SES APPLICATIONS, *diagrams and illustrations, later morocco-backed boards, rubbed, [Tomash & Williams A1], Paris, 1886; Die Integrgraphen, diagrams and illustrations, A.L.s. from the author to the translator and the translator's contract signed by the publisher loosely inserted, later calf-backed boards, Leipzig, B.G. Teubner, 1889; and another, similar, 8vo (3)*

\*\*\* The mechanical integragraph invented by Abakanowicz was an elaboration of the planimeter. It was "a noteworthy development in the history of calculating instruments, for it represents an early, albeit limited, analog approach to the solution of differential equations" - Tomash & Williams.

£150 – 200

**189**

**Mensuration.- Planimeters.- Morin (Henri de)** LES APPAREILS D'INTÉGRATION. INTÉGRATEURS SIMPLES ET COMPOSÉS. PLANIMÈTRES; INTÉGROMÈTRES; INTÉGRAPHES ET COURBES INTÉGRALES; ANALYSE HARMONIQUE ET ANALYSEURS, *original wrappers, Paris, 1913 § Amsler (A.)*

Instructions for using J. Amsler-Laffon's mechanical integrator, *folding plate, A.L.s. on behalf of Amsler-Laffron & Sohn, to the London instrument dealers W.F. Stanley & Co., stating prices for integrators dated 30 August 1890 laid down onto title verso, original printed wrappers, chipped with loss and laid down, slipcase, 1883 § Coradi (Gottlieb) Les planimètres Coradi. Systèmes Hohmann-Coradi et Lang-Coradi, Zurich, Aschmann & Scheller, 1904, BOUND WITH [4 other works on planimeters], together 5 works in 1 vol., folding plates, later morocco-backed cloth, [Tomash & Williams M130, A75, C183, D22, L55 & O33]; and 13 others, planimeters, 8vo (16)*

£200 - 300

**190**

**Mercator (Nicolaus)** OGARITHMO-TECHNIA: SIVE METHODUS CONSTRUENDI LOGARITHMOS NOVA, ACCURATA, & FACILIS; SCRIPTO ANTEHAC COMMUNICATA, ANNO SC., 1667., *folding engraved plate (misbound in second work), without the divisional title after F1 (this probably added later according to ESTC), D3 with some loss to head affecting headline, 1668, BOUND WITH Gregory (James) Exercitationes geometricæ, folding engraved plate, 1668, together 2 works in 1 vol., woodcut initials and head-pieces, occasional light browning, 20th century calf-backed boards, [Tomash & Williams M87 & G82; Wing M1730 & G1909], William Godbid & Moses Pitt, small 4to.*

\*\*\* These works were probably intended to be issued together. Gregory "is now ranked as the second best mathematician of his day, after Newton. Among his contributions, Gregory anticipated Newton in discovering both the interpolation formula and the general binomial theorem" - Tomash & Williams. Mercator moved from Denmark to London and was a founding member of the Royal Society. The present work deals with the calculation of logarithms including the series which now bears his name.

£1,000 - 1,500



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191

**Merchants' handbooks.-** LE CALCUL DES PAYEMENS EN ESPÈCES JOINTES ET SÉPARÉES DE LA MONNOYE NOUVELLE: POUR SAVOIR PROMPTEMENT EN COMBIEN DE MANIÈRES DIFFÉRENTES L'ON PEUT PAYER UNE SOMME DE LIVRES, EN LOUIS D'OR DE 12L. 10S. & ECUS BLANCS DE 66S., *occasional browning, contemporary calf, covers a little wormed, Lyon, André Canier, 1691* § Serre (Jean-Baptiste-Adrien-Joseph) Livre Utile Aux Négocians De L'Europe, *sixth edition, author's signature on title, woodcut decorations and illustrations, Tournay, J. J. Serre, 1797*, BOUND WITH Tarif décimal ou réduction de la livre tournois de France, *Tournai, J. J. Serre, 1804*, together 2 works in 1 vol., *contemporary calf, spine ends chipped* § Legoux (Louis Hylaire) Table tres utile et tres curieuse a tous les jeunes gens qui se destinent au commerce de Banque et a tous Negotians, *engraved broadside, signed by the author at foot, staining, worming and tears with some repairs, [?Paris], Legoux, [1726], [Tomash & Williams R22, S87 & L61], 8vo & folio (3)*  
£150 - 200

192

**Merchants' handbooks.-** Barrême (François) LE LIVRE DES AYDES, DOMAINE, ET FINANCES, Tres-utile à toute sorte de personnes; particulierment aux Traitans, & aux commis; & mesme à ceux qui aspirent à y estre emplotez. Aux marchands, cabaretiers, bouchers, & autres qui en payent les droits, *additional engraved title, woodcut head-and tail-pieces, occasional staining, contemporary calf, gilt, upper joint and corners repaired, Paris, Denys Thierry, 1685* § Serré (Jean-Baptiste-Adrien-Joseph). Livre utile aux négocians de l'Europe, *woodcut illustrations, worming to lower margin towards end, contemporary calf, spine gilt, Paris, Valade, 1775* § Réductions des aunes et argent de Brabant en aunes et argent de France, *ink stamp to endpaper, contemporary vellum-backed boards, small split to spine, Brussels, P. Vleminckx, 1808, [Tomash & Williams B97, S86 & R19], 8vo (3)*  
£150 - 200

193

**Merchants' handbooks.-** Brown (Rev. George) ARITHMETICA INFINITA OR THE ACCURATE ACCOUNTANT'S BEST COMPANION CONTRIV'D AND CALCULATED, PRESENTATION COPY WITH INK INSCRIPTION "EX DONO REV. AUTHORIS. 16 MART. 1718/19 to pastedown, frontispiece and all but the second f. engraved, preserved in custom drop-back box, [Edinburgh], *Printed for the Author, [1717]* § Hewitt (John) Interest compleated, in three parts, *rebacked, A. Bettesworth & J. Clarke, [?1723]* § Hayes (Richard) Interest at one view, calculated to a farthing..., *the ninth edition, bookplate of the Turner collection, Keele University, W. Meadows, 1754, occasional spotting or marking, ink notes to endpapers, contemporary calf, a little rubbed, [Tomash & Williams B270, H130 & H86]; and 2 others, similar, 8vo (5)*  
£200 - 300

194

**Merchants' handbooks .-** Castaing (John) AN INTEREST BOOK, AT 4,5,6,7,8 PER C. FROM 1000 L. TO 1 L. FOR 1 DAY TO 92 DAYS, AND FOR 3,6,9,12 MONTHS, *third edition, contemporary ink inscription "Ex Jn. Castaing" (?his copy) to A3, Printed for the Author, 1712* § [Mabbut (George)] Isaac Newton's tables for renewing and purchasing of the leases of cathedral-churches and colleges, according to several rates of interest... To which are also added, tables of interest, *sixth edition, 2 parts in 1 vol., authentication signature of the publisher, bookplate of John Toke (1671-1746), Godinton, Kent, rebacked, covers scuffed, Thomas Astley, 1742* § Hewitt (John) Interest compleated, in three parts, *engraved throughout, A. Bettesworth & J. Clarke, [?1723], ink names to endpapers, contemporary calf, [Tomash & Williams C38, M3 & H130]; and 2 others, similar (5)*  
£200 - 300

195

**Merchants' handbooks.-** Smart (John) TABLES OF INTEREST, DISCOUNT, ANNUITIES, &C., *bookplate of Edward, Lord Suffield, rebacked, J. Darby*





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and T. Browne, 1726 § Rowlett (John) Rowlett's tables of discount, or interest, *index tab, browning, Philadelphia, Hugh Maxwell for the Proprietor*, 1802 § Hatton (Edward) An index to interest, *portrait frontispiece, volvelle on final leaf, cancelled bookplate of Rochester cathedral library, Printed and sold by Mr. Harper [and others]*, 1711, *contemporary calf, rubbed, [Tomash & Williams S127, R119 & H74]*; and 2 others, similar, 4to & 8vo (5)

£200 - 300

196

**Merchants' handbooks.- Tapis (Vincent César)** TABLES DE NOMBRES FIXES, PUR OPÉRER LES PRINCIPALES RÉDUCTIONS ÉTRANGÈRES AVEC LA FRANCE, FIRST EDITION, *woodcut title decoration, first and last f. blank, contemporary calf, wear to extremities, Lyon, Pierre Valfray*, 1751 § Nouvelle methode pour trouver facilement & en peu de tems la valeur de quelque nombre que ce sort de Louis d'argent, d'ecus d'or, lys d'or, de pistoles & de Louis d'or, avec un nouveau calcul pour les rentes, depuis le denier sept jusques au denier trente. Augmentée, *a few small patches of staining, ink stamps to title, contemporary calf, spine ends chipped, Paris, Jean Guignard*, 1686 § Ouvrier Delile, Jean-Claude (d.1807). Calcul des décimales, appliqué aux différentes opérations de commerce, de banque et de finance, FIRST EDITION, *half-title, manuscript index tabs, bookplates to pastedown, contemporary calf-backed marbled boards, Paris, Libraires Associés*, 1765, *[Tomash & Williams T6, R23 & O57]*, 8vo (3)

£150 - 200

197

**Meredith (Nicholas)** THE DESCRIPTION AND USE OF POCKET CASES OF MATHEMATICAL OR DRAWING INSTRUMENTS, FIRST EDITION, *3 engraved plates, one folding, one full-page and one a slip, smallest and largest plate cropped, some very light offsetting, contemporary boards, sympathetically rebacked, rubbed, [Tomash & Williams M89]*, 8vo, *for the Author*, [1791].  
\*\*\* Rare, we can trace only 1 other copy of

this work at auction in the last 40 years.

£350 - 450

198

**Metius (Adriaan)** MANUALE ARITHMETICE & GEOMETRIE PRACTICE: IN HET WELCKE BENEFFENS DE STOCK-REKENINGHE OFTE RABDOLOGIA J. NEPPERI, FIRST EDITION, *woodcut illustration to title, woodcut initials, illustrations, head- and tail-pieces, 4 folding woodcut tables, 4 additional tables loosely inserted, blindstamp to title and second ff., title a little soiled, small hole to 12 affecting signature, bookplate to pastedown, contemporary calf, rubbed, [Tomash & Williams Add 32]*, 8vo, Amsterdam, Henderick Laurentsz, 1634.

\*\*\* The Macclesfield copy of this work on arithmetic and surveying.

Provenance: The Earls of Macclesfield (bookplate and blindstamp).

£1,000 - 1,500

199

**Meteorology.- Richardson (Lewis F.)** WEATHER PREDICTION BY NUMERICAL PROCESS, FIRST EDITION, *frontispiece, diagrams and illustrations, original cloth, dust-jacket, spine ends and corners a little chipped, some splitting and wear to lower joint, [Tomash & Williams R88]*, 4to, Cambridge, 1922.

\*\*\* RARE LANDMARK WORK ON WEATHER FORECASTING.

£200 - 300

200

**Military fortifications.-** DE L'USAGE DU COMPAS DE PROPORTION, *autograph manuscript in brown ink, 22ff., title within elaborate cartouche illustrated with fruits and a face, chapter titles within head-pieces, diagrams and 11 fortification designs, worm hole running throughout, occasional light soiling, neatly recased in seventeenth-century black morocco, gilt, [Tomash & Williams S78]*, small 8vo, 1681.

\*\*\* "This well-done manuscript is more about building of fortifications than about the sector. The sector is used as a sighting/surveying instrument as well as a



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device to do minor calculations. It begins with a short section on the line of lines, parts of the circle and some elementary trigonometry. The rest of the text is made up of a consideration of eight different fortification problems." - Tomash & Williams.

Provenance: Gabriel Peignot (1767-1849); Jacques Techener, Catalogue d'une nombreuse collection de livres anciens rares et curieux provenant de la bibliothèque de feu Gabriel Peignot, Paris, 8-30 March 1852, lot 935 ("De l'usage du compas de proportion, pet. in-8, mar. noir, p l. Ms. du xviii siècle sur pap. et orné de dessins à la plume").

£500 - 700

**201**

**Monte (Guidobaldo del)** PLANISPHAERIORUM UNIVERSALIUUM THEORICA, FIRST EDITION, *title with woodcut vignette, woodcut initials and illustrations, some full-page, lacking final two ff. (containing errata and colophon), very occasional light spotting, later calf, gilt, sympathetically rebounded, preserving majority of original backstrip, corners bumped, extremities rubbed, [Edit16 16712; Riccardi ii, 179; Tomash & Williams M120], 4to, Pesaro, Girolamo Concordia, 1579.*

\*\*\* Scarce. Guidobaldo helped to develop a number of mathematical instruments, including the proportional compass, the elliptical compass, and a device for dividing the circle into degrees, minutes, and seconds. He was a patron and friend of Galileo.

£600 - 800

**202**

**Morin (Jean-Baptiste)** TRIGONOMETRIAE CANONICAE LIBRI TRES. QUIBUS PLANORUM ET SPHÆRICORUM TRIANGULORUM THEORIA ATQUE PRAXIS ACCURATISSIMÈ BREVISSIMÉQUE DEMONSTRANTUR. ADIUNGITUR LIBER QUARTUS, PRO CALCULI TABULIS LOGARITHMORUM, FIRST EDITION, *woodcut initials, head-pieces and diagrams, errata f. at end, section excised from margin of title and restored, contemporary calf, ruled in gilt and lettered "Convent. Concept. Capucin. Parisi.", wear to upper joint, spine*

*ends and corners, g.e., [Tomash & Williams M131], 4to, Paris, Jean Libert, 1633.*

\*\*\* "Morin had a difficult personality and is remembered not only as an opponent of Galileo (and his Copernican ideas) but also as a fervent opponent of Descartes. He should, however, be given credit for his attempts to solve the longitude problem. His solution was based on measuring absolute time by the position of the moon relative to the stars. Morin recognized that better instruments and better lunar tables were required to implement his solution, and he sought to make some advances in these areas. As a practical matter, his method, though theoretically sound, did not achieve the required accuracy. Morin is remarkable in that these logarithm tables are among the earliest anywhere and certainly are the first published in France by a Frenchman. He was obviously a capable mathematician and seems to have grasped the usefulness of logarithms when many of his contemporaries did not." - Tomash & Williams.

Provenance: Couvent des Capucins du Marais (Paris, founded 1622, inscription on title and lettered on upper cover).

£250 - 350

**203**

**Musalo (Andrea)** USO DE' LOGARITMI NELLA TRIGONOMETRIA PIANA, E NELLI TIRI DELL'ARTIGLIERIE, E DE' MORTARI A CUI SONO ANNESSE LE TAVOLE D'ESSI LOGARITMI, TANTO PER I SENI, E TANGENTI, QUANTO PER I NUMERI DELL'UNITA FINO AL 10000, 3 *engraved plates (2 shorter, one folding), title a little soiled with outer margin repaired, lacking errata, contemporary speckled calf, lower joint splitting, Venice, Giovanni Domenico Nanti, 1702 § Condillac (Étienne Bonnot de) La langue des calculs, 2 vol. in 1, contemporary calf, spine ends and corners worn, Basel & Paris, S.S. Tourneisen and Volland, An VII de la République, [1798/99], [Tomash & Williams M152 & C167], 8vo (2)*

£150 - 200

**204**

**Napier (John)** RADDOLOGIA, OVERO ARIMMETICA



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VIRGOLARE, FIRST ITALIAN EDITION, 7 woodcut plates (including one table), all but one folding, illustrations, some full-page, woodcut printer's device on final leaf, decorations and initials, spotting, 18th century vellum, small patch worn on upper cover, head of spine defective, [Tomash & Williams N8; Riccardi ii, 44], 8vo, Verona, Angelo Tamo, 1623.

\*\*\* FIRST ITALIAN EDITION OF ONE OF THE EARLIEST BOOKS ON THE USE OF MECHANICAL DEVICES IN MATHEMATICAL CALCULATION. This translation contains additional commentary by Locatello, as well as illustrations not appearing in the original edition published in Edinburgh, 1617. "A set of ten rods of wood or ivory constituted one of the earliest forms of mechanized calculation. With these Napier tried to do away with the tediousness of calculating and coined the word 'rabdologia' as numeration by little rod." (Dibner)

£1,500 - 2,000

**205**

**Napier (John)** RABDOLOGIAE SEU NUMERATIONIS PER VIRGULAS LIBRI DUO, *third edition, 9 folding woodcut and letterpress plates, a few with slight tears, one repaired, woodcut initials and diagrams, lower half of title defective and supplied in facsimile, small burn-hole to B7 with slight loss of text, browned, bookplate of Michel Chasles with ink inscription about the purchase of this copy at the Chasles sale in 1881, contemporary vellum, modern cloth drop-back box, [Tomash & Williams N10; Dibner 107 for first edition], 12mo, Leiden, Pieter Rammazeyn, 1628.*

£700 - 1,000

**206**

**Napier (Mark)** MEMOIRS OF JOHN NAPIER OF MERCHISTON, FIRST EDITION, 13 plates, occasional foxing, bookplate of the Maitland Club to pastedown 20th century morocco-backed club with emblem of Maitland Club to covers, Edinburgh, 1834 § Napier (John) De arte logistica Joannis Naperi merchistonii baronis libri qui supersunt, engraved frontispiece, plate, contemporary boards, rebounded in calf, Edinburgh, 1839, [Tomash & Williams N16 &

N14bis], 4to (2)

£150 - 200

**207**

**Napier (John)** DE ARTE LOGISTICA JOANNIS NAPERI MERCHISTONII BARONIS LIBRI QUI SUPERSUNT, DELUXE WIDE-MARGINED COPY PRINTED IN RED AND BLACK, PRESENTATION INSCRIPTION "TO WILLIAM STIRLING [MAXWELL] ESQ. OF KEIR WITH THE EDITOR'S BEST REGARDS" to endpaper, engraved frontispiece, plate, foxing to endpapers, contemporary half morocco, rebounded, Edinburgh, 1839; The Construction of the Wonderful Canon of Logarithms. Translated from Latin into English with notes and a catalogue of the various editions of Napier's works, by William Rae MacDonald, FIRST EDITION IN ENGLISH, bookplate to pastedown, original vellum-backed cloth, uncut, Edinburgh, 1889, [Tomash & Williams N14 & N13]; and 2 others, Napier, 4to & 8vo (4)

£150 - 200

**208**

**Navigation.- Newhouse (Daniel)** THE ART OF SAILING BY THE LOGARITHMS, OR ARTIFICIAL SINES AND TANGENTS. BEING THE MOST EXACT WAY OF WORKING ALL SORTS OF TRAVERSES, AND KEEPING A RECKONING AT SEA. THE WHOLE BEING PRACTICALLY AND VERY INTELLIGIBLY LAID DOWN, WITH NECESSARY QUESTIONS IN ASTRONOMY. BEING THE SECOND PART OF THE WHOLE ART OF NAVIGATION, FIRST EDITION, tables and diagrams, title with short tears to gutter, occasional browning, bookplate removed from title verso, lacking front free endpaper, contemporary red panelled morocco, richly gilt with acorn, floral and foliage tools, all within three sets of triple file borders, spine in compartments, each with a single floral tool, extremities rubbed, cracking to joints, [Tomash & Williams N27], 4to, for Richard Mount, 1701.

\*\*\* First edition of this second part of Newhouse's *The Whole Art of Navigation*. The unnumbered leaves at the end of this book contain James Atkinson's *A Triangular Canon Logarithmical: or a table of artificial sines, tangents and secants*. The Naval Binder used a small parrot head stamp, very similar but



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not identical to this stamp.

£1,000 - 1,500

**209**

**Neander (Michael)** SYNOPSIS MENSURARUM ET PONDERUM, PONDERATIONIS<sup>1</sup>, QUE MENSURABILIMUM SECUNDUM ROMANOS, ATHENIENSES, EX PRÆSTANTISSIMIS AUTHORIBUS HUIUS GENERIS CONTRACTA, FIRST EDITION, *woodcut initials and tables, k3 closely trimmed at foot, small ink note to title, 20th century vellum-backed boards*, [Tomash & Williams N21; VD16 N341], 4to, Basel, Johann Oporinus, 1555.

\*\*\* The author's first book, for some time the 'standard work' on the measures of the ancients. It includes the Greek text, with Neander's Latin translation, of Galen's treatise on measures.

£400 - 600

**210**

**Neve (Richard)** MATHEMATICKS MADE PLAIN, IN THE SOLUTION OF VARIETY OF USEFUL PROPOSITIONS... ALL PERFORM'D BY THAT EXCELLENT LINE OF NUMBERS, COMMONLY CALL'D GUNTER'S-LINE. BEING A NECESSARY COMPANION FOR GENTLEMEN, MILITARY OFFICERS, ENGINEERS, ARCHITECTS, FIRST EDITION, *occasional spotting or light browning, ink stamp to title, 20th century calf*, [Tomash & Williams N26], 8vo, W. Pearson, 1708.

\*\*\* A rare little work, designed for use by tradesmen.

Provenance: John Thomas Barber Beaumont (1774-1821, ink stamp).

£200 - 300

**211**

**Newton (John)** TABULÆ MATHEMATICÆ: OR, TABLES OF THE NATURALL SINES, TANGENTS AND SECANTS, AND THE LOGARITHMS, *tables, folding table at rear (torn and neatly repaired)*, Robert & William Leybourn for George Hurlock and Robert Boydell, 1654 BOUND WITH Institutio Mathematica. Or, A Mathematical Institution. Shewing the Construction and use of the Naturall and Artificiall Sines, Tangents, and Secants, in Decimal Numbers, and also of the Table of Logarithms, 2 *folding plates, 1 smaller plate facing 13, tables and diagrams*,

[Wing N1061], Robert & William Leybourn for George Hurlock and Robert Boydell, 1654, together 2 works in 1 vol., *closely shaved, book label to pastedown, contemporary calf, sympathetically rebacked, retaining original backstrip*, [Tomash & Williams N34 & N33], 12mo.

\*\*\* Scarce, the Horblit copy of these tables along with another work by Newton designed to instruct in their use in astronomy, navigation and the creation of sundials. Provenance: Harrison D. Horblit (1912-1988, book label).

£200 - 300

**212**

**Newton (John)** A HELP TO CALCULATION. OR TWO TABLES: THE ONE OF DECIMAL NUMBERS, AND THE OTHER OF THEIR LOGARITHMES, FOR THE READY CONVERTING OF SEXAGENARY TABLES INTO DECIMAL, AND THE CONTRARY, FIRST EDITION, *title within ruled border, tables, ink stamp to title verso, 20th century half morocco*, [Tomash & Williams N33; Wing N1060], small 4to, Joseph Moxon, 1657.

\*\*\* Rare. "The present work, published by Joseph Moxon for sale in his instrument shop, is designed to aid in the conversion from sexagesimal to decimal numbers so that problems in astronomy, navigation, etc. can more easily be solved using the standard logarithmic tables. After a short introduction, the majority of the volume is taken up by the tables." - Tomash & Williams.

Provenance: The Royal Society (ink stamp).

£200 - 300

**213**

**Nomography.- Douglass (Raymond D.) and Douglas P. Adams.** Elements of Nomography, *dust-jacket, spine ends and corners chipped*, New York, 1947 § Allcock (Harold John) and John Reginald Jones. The Nomogram. The theory and practical construction of computation charts, *Isaac Pitman*, 1932 § Lipka (Joseph) Graphical and mechanical computation, *New York, John Wiley & Sons, Inc.*, 1918, *original cloth*, [Tomash & Williams D64, A61 & L117]; and 9 others on the same,



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8vo (11)

£100 - 150

**214**

**Nomography.- Ocagne (Philbert Maurice d')**

TRAITÉ DE NOMOGRAPHIE. THÉORIE DES ABAQUES. APPLICATIONS PRATIQUES, *folding plates, bookplate to pastedown, contemporary morocco-backed boards, light rubbing to extremities, Paris, 1899*; Principes usuels de nomographie, *illustrations, modern wrappers with original wrappers bound in, preserved in custom drop-back box, Paris, Gauthier-Villars, 1920, [Tomash & Williams O22 & O23]*; and 15 others by the same, 8vo (17)

\*\*\* Ocagne invented nomograms in 1884. These are diagrams using a parallel coordinate system that allow the approximate graphical computation of a mathematical function. They allow for quick and accurate computations and were widely used until the development of the pocket calculator.

£200 - 300

**215**

**Number theory.- Fine (Henry Burchard)**

THE NUMBER-SYSTEM OF ALGEBRA TREATED THEORETICALLY AND HISTORICALLY, FIRST EDITION, *spine ends and corners a little rubbed and bumped, Boston, 1890* § Dedekind (Julius Wilhelm Richard) *Essays on the theory of numbers, Chicago, Open Court, 1909* § Householder (Alston Scott) *Principles of numerical analysis, New York, McGraw-Hill Book Company, 1953, FIRST OR FIRST AMERICAN EDITIONS, original cloth, [Tomash & Williams F57, D25 & H172]*; and 9 others, number theory, 8vo (12)

£150 - 200

**216**

**Oughtred (William)** CLAVIS MATHEMATICÆ DENUO LIMATA, SIVE POTIUS FABRICATA, 4 parts in 1 vol., *title within ruled border, woodcut initials, head-pieces and diagrams, ink stamps to endpaper and pastedown, contemporary ink inscriptions to endpaper, contemporary calf, upper joint splitting, extremities a little rubbed, preserved in custom drop-back box,*

*[Tomash & Williams O40, 45, 47, 52; Wing O574], 8vo, Oxford, Leonard Lichfield for Thomas Robinson, 1652.*

\*\*\* The third edition of this work and the last to be printed in Oughtred's lifetime, includes a treatise on dialling translated in Latin by Christopher Wren.

Provenance: J. Wilson (ink inscription with "Donum V. Cl. R. Smith" below); Land Thüringen Landesbibliothek Altenburg (ink stamp).

£400 - 600

**217**

**Oughtred (William)** KEY OF THE MATHEMATICKS. Newly translated from the best edition with notes [by Edmond Halley], *title within double-ruled woodcut border, diagrams in text, damp-staining at foot towards end, sympathetically rebacked, extremities rubbed, [Tomash & Williams O50; Wing O583], 8vo, John Salusbury, 1694.*

\*\*\* Edmond Halley's translation of Oughtred's classic work.

"Despite its small size, [the present work] contained all the elements of arithmetic and algebra then known. It was in this work that Oughtred introduced several mathematical symbols (the "x" for multiplication and ":" for proportion) still in use today. He also gave many examples of the use of decimal fractions" - Tomash & Williams.

£500 - 700

**218**

**Oughtred (William)** CLAVIS MATHEMATICÆ DENUO LIMATA, SIVE POTIUS FABRICATA, 4 parts in 1 vol., *title within ruled border, engraved portrait frontispiece (closely shaved), tables and diagrams, title foreshortened at head, contemporary ink inscription to frontispiece recto, lacking front free endpaper, contemporary calf, extremities rubbed, [Tomash & Williams O41, O46, O48, O53; Wing O577], 8vo, Oxford, Leonard Lichfield for Thomas Leigh, 1698.*

\*\*\* Provenance: George Courthorpe (1687-1741, ink inscription).

£150 - 200



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**219**

**Ozanam (Jacques)** TABLES DES SINUS TANGENTES ET SÉCANTES, FIRST EDITION, *woodcut initials, head-pieces and diagrams, light dampstaining and minor worming towards end, later boards, stained, modern label to spine, [Tomash & Williams O64], Paris, Author & Estienne Michallet, 1685; and 4 others, logarithmic tables by the same and similar, 8vo (5)*  
**£150 - 200**

**220**

**Ozanam (Jacques)** L'USAGE DU COMPAS DE PROPORTION, EXPLIQUE ET DEMONTRE D'UNE MANIERE COURTE & FACILE, FIRST EDITION, *2 engraved and 2 woodcut plates, woodcut initials, head- and tail-pieces and diagrams, book label to pastedown, contemporary calf, spine gilt, spine ends a little chipped, preserved in custom drop-back box, [Tomash & Williams O69], 8vo, Paris, Estienne Michallet, 1688.*  
\*\*\* Provenance: Léon Leroy (book label).  
**£200 - 300**

**221**

**Ozanam (Jacques)** L'USAGE DU COMPAS DE PROPORTION: EXPLIQUE & DEMONTRE D'UNE MANIERE COURTE & FACILE, *engraved folding plate with 2 images, contemporary vellum, preserved in custom drop-back box, The Hague, Henri van Bulderen, 1691; [Another edition], 2 engraved plates, title a little soiled with erased name to recto and ink stamp of Dresden library to verso, light marginal soiling, 20th century marbled boards with old calf spine, spine ends repaired, Paris, Jean Jombert, 1700, titles with woodcut decorations, woodcut initials, head- and tail-pieces and diagrams, [Tomash & Williams O70 & O71], 8vo (2)*  
**£150 - 200**

**222**

**Ozanam (Jacques)** MÉTHODE FACILE POUR ARPENTER OU MESURER TOUTES SORTES DE SUPERFICIES, FIRST EDITION, *woodcut initials, head-pieces and diagrams, handsome*

*contemporary red morocco, gilt, spine gilt in compartments, g.e., slip-case, [Tomash & Williams O60], 8vo, Paris, Jean Jombert, 1699.*  
\*\*\* An attractive copy of this treatise on surveying and surface measurement in general.  
**£500 - 700**

**223**

**Paetus (Lucas)** DE MENSURIS ET PONDERIBUS ROMANIS ET GRAECIS CUM HIS QUAE HODIE ROMÆ SUNT COLLATIS LIBRI QUINQUE. EIUSDEM VARIARUM LECTIONUM LIBER UNUS, *large woodcut device to title, woodcut initials and full-page woodcut illustrations, lacking final 2 ff. (index, seemingly as often), a few light stains to title, occasional foxing, later vellum-backed boards, a little rubbed, [Edit16 48417; Tomash & Williams P6], folio, Venice, [Paolo Manuzio], 1573.*  
\*\*\* On ancient Greek and Roman weights and measures.  
**£400 - 600**

**224**

**Palmer (John)** THE CATHOLIQUE PLANISPHAER. WHICH MR BLAGRAVE CALLETH THE MATHEMATICAL JEWEL, FIRST EDITION, *engraved additional pictorial title, 4 plates (of which 3 tipped onto outer edge of text ff. as issued), T4 duplicated, occasional autograph notes to margins and plates, occasional spotting or browning, mostly marginal, later half calf, rebaked preserving original backstrip, [Tomash & Williams P12; Wing P248], small 4to, Joseph Moxon, 1658.*  
\*\*\* A revision of Blagrove's The Mathematical Jewel of 1585.  
Provenance: Harrison D. Horblit (1912-1988, book label to pastedown).  
**£400 - 600**

**225**

**Paricius (Georg Heinrich)** PRAXIS ARITHMETICES, ODER GRÜNDLICHE ANWEISUNG ZU DER IM GEMEINEN LEBEN UND WESEN ANSCHICKLICH-UND DIENLICHEN RECHEN-KUNST [PART 3: KURTZ-UND RICHTIGE AUFLÖSUNG EINES VIERFACH-VERKNÜPFFTEN RECHEN KNOPFFS], 3 parts in 1



# Forum Auctions

vol., first title double-page and printed in red and black, T7 with repaired tear running into text, occasional very light spotting, contemporary speckled calf, chip to foot of spine and upper fore-edge, [Tomash & Williams P14 & P15], 8vo, Regensburg, Johann Zacharias Seidel, 1706-1705.

\*\*\* Rare. "Paricius was a mathematician and writing master from Regensburg who is known primarily for his books on writing. However, this is a book on arithmetic that deals mainly with commercial calculations involving grain prices, profit and loss, money changing, etc." - Tomash & Williams. Tomash & Williams describe this as two works, albeit one an extension of the other. However the second part ends with the catchword "Kurtz" (on 2D7) suggesting that they are intended as one. The pages at the end of part 2 are confused: 2D7 is followed by two duplicated leaves (pp.39-42, i.e. T6-7, from part 2), then an errata leaf.

£300 - 400

## 226

**Pearson (Karl)** THE CHANCES OF DEATH AND OTHER STUDIES IN EVOLUTION, 2 vol., FIRST EDITION, engraved frontispieces, errata slips, plates, original green cloth, spines slightly darkened, minor bumping to spine ends and corners, spotting to fore-edge, excellent otherwise, [Tomash & Williams P33], 8vo, Cambridge, 1897.

£120 - 180

## 227

**Penther (Johann Friedrich)** PRAXIS GEOMETRIAE, WORINNEN NICHT NUR ALLE BEY DEM FELD-MESSEN VORKOMMENDE FÄLLE, MIT STÄBEN, DEM ASTROLABIO, DER BOUSSOLE, UND DER MENSUL, IN AUSMESSUNG EINTZELER LINIEN, FLÄCHEN UND GANTZER REVIER, engraved frontispiece, title with short marginal repair, Augsburg, Jeremiah Wolff, 1755 BOUND WITH Zugabe Zur Praxi Geometriæ, Augsburg, Heirs of Jeremiah Wolff & Johann Michael Probst, 1754, together 2 works in 1 vol., Gothic letter, woodcut initials, head- and tail-pieces, 39 engraved folding plates, contemporary calf,

strengthened and repaired, [Tomash & Williams P38 & 39], folio.

\*\*\* The first is the major German work on geometry and surveying of its day, the second is a continuation of the same, the two were seemingly often sold together.

£500 - 700

## 228

**Phillippes (Henry)** A MATHEMATICAL MANUAL, 4 engraved plates, one folding, 3pp. advertisements at end, front endpaper frayed with portion restored, occasional spotting, modern calf, [Tomash & Williams P70; Wing P2049B], small 8vo, M. Clark for W. Fisher and R. Mount, 1684.

\*\*\* Provenance: Cary Burbidge (inscription dated 20 September 1696) Samuel Sayer (old inscription); Harrison D. Horblit (1912-1988, book label)

£150 - 200

## 229

**Pitiscus (Bartholomaeus)** SINUUM TANGENTIUM ET SECANTIUM CANON MANUALIS, FIRST EDITION, title with woodcut decoration, the odd spot or neat ink correction, occasional light damp-staining or browning, ink name erased from title, contemporary vellum, light staining, later endpapers, [Tomash & Williams P90; VD17 14:634982P], 12mo, Heidelberg, Johannes Rosae, 1613.

\*\*\* Rare first edition of Pitiscus's separately-issued trigonometric tables. Pitiscus created the modern field of trigonometry and gave it its name, we can trace only 2 other copies at auction in the last 50 years.

£350 - 450

## 230

**Pitiscus (Bartholomaeus)** SINUUM, TANGENTIUM ET SECANTIUM CANON MANUALIS, upper cover lettered in gilt "IHS 1628", lacking ties, [Tomash & Williams P91; VD17 39:115082B], Heidelberg, Jonas Rosa, 1620; [Another edition], [edited by Denis Henrion], woodcut diagrams, light spotting, minor worming to first few ff., preserved in custom drop-back box, [Tomash & Williams H108],



# Forum Auctions

*Paris, Melchior Mondière, 1623, titles with woodcut decorations, tables, ink inscriptions to titles and endpapers, contemporary vellum, 12mo (2)*

£150 - 200

## 231

**Playford (John)** VADE MECUM, OR THE NECESSARY COMPANION, CONTAINING, 1. SIR S. MORLAND'S PERPETUAL ALMANACK... 2. THE COMPUTATION OF YEARS... 3. THE REDUCTION OF WEIGHTS AND MEASURES. 4. THE READY CASTING UP ANY NUMBER OF FARTHINGS [&c.] WITH SIR SAMUEL MORLAND'S NEW TABLE FOR GUINNEYS... 5. THE INTEREST, AND REBATE OF MONEY, THE FORBEARANCE, DISCOMPT, AND PURCHASE OF ANNUITIES, AT 6 PER CENT. 6. THE RATES OF POST-LETTERS... 7. THE RATES OR FARES OF COACH-MEN [&c.], FIRST EDITION, *dedication f., engraved portrait of Samuel Morland, 3 engraved and numerous woodcut tables, small repair to title fore-margin, modern morocco-backed boards, [Kress (Supplement) S.595; Tomash & Williams P95; Wing P2505], small 8vo, by A. G. and J. P., 1679.*

\*\*\* Rare in first edition.

Provenance: Royal Society, London (ink stamp to foot of dedication).

£750 - 1,000

## 232

**Prodigies.- Colburn (Zerah)** A MEMOIR OF ZERAH COLBURN; WRITTEN BY HIMSELF, FIRST EDITION, *occasional foxing or staining, preserved in custom drop-back box, Springfield, MASS, 1833 § Binet (Alfred) Psychologie des grands calculateurs et joueurs d'échecs, 8pp. publisher's catalogue at end, original printed wrappers, upper cover becoming detached, preserved in custom drop-back box, Paris, Hachette, 1894, [Tomash & Williams C116 & B154]; and 2 others, similar, 8vo (4)*

£150 - 200

## 233

**Prony de (Gaspard Clair Francois Marie Riche de)** LEÇONS DE MÉCANIQUE ANALYTIQUE, DONNÉES À L'ÉCOLE IMPÉRIALE POLYTECHNIQUE, *2 parts in 1 vol., half-titles, 1f. errata, 4 large engraved folding plates (last plate with small overslip on*

*title), 20th century half calf, [Tomash & Williams P117], Paris, 1810 [-1815]; Notice sur les grandes tables logarithmiques et trigonométriques ... Avec le Rapport sur ces Tables et sur l'Introduction qui y est jointe, fait a la classe des sciences physiques et mathematiques de l'Institut national, modern marbled boards, [Tomash & Williams P118 and L13] Paris, Baudouin, [1801], 4to (2)*

£300 - 400

## 234

**Punched card tabulators.- Baehne (George W.)** PRACTICAL APPLICATIONS OF THE PUNCHED CARD METHOD IN COLLEGES AND UNIVERSITIES, FIRST EDITION, *plates and illustrations, original cloth, New York, 1935 § Casey (Robert S.) and James W. Perry. Punched cards: their applications to science and industry, second edition, original cloth, dust-jacket, spine ends and corners a little chipped, New York, Reinhold Publishing Corporation, 1958 Blaschke (Ernst) Vorlesungen Uber Mathematische Statistik, ink stamps, plates and illustrations, original cloth, Leipzig, Teubner, 1906, [Tomash & Williams B73, C35 & B178]; and 4 others on the same, 8vo (7)*

£120 - 180

## 235

**Punched card tabulators.- Eckert (Wallace)** PUNCHED CARD METHODS IN SCIENTIFIC COMPUTATION, FIRST EDITION, *diagrams and illustrations, original cloth, Columbia University, 1940 § Friedman (Burton D.) Punched card primer, Department of the Interior library stamps (and Withdrawn stamps), original boards, extremities rubbed, New York, Public Administration Service, 1955 § Casey (Robert S.) and James W. Perry. Punched cards: their applications to science and industry, second printing, original cloth, New York, Reinhold Publishing Corporation, 1951, [Tomash & Williams E1, F99 & C34]; and 6 others on the same, 8vo (9)*

£150 - 200





# Forum Auctions

236

**Ramus (Petrus)** ARITHMETICÆ LIBRI DUO:

GEOMETRIÆ SEPTEM ET VIGINTI, FIRST EDITION, *title with woodcut device, woodcut initials and diagrams, occasional ink annotations in a contemporary hand, marginal repair to title, occasional light damp-staining to margins, ink library stamps to title and a1, 20th century pigskin-backed boards, [Smith, Rara Arithmetica p.330; Tomash & Williams R8; VD16 L451], 4to, Basel, heirs of Eusebius & Niklaus Bischoff, 1569.*

\*\*\* "Peter Ramus (Pierre de la Ramée) was primarily a teacher of mathematics who was a central figure in the early stages of the Scientific Revolution. "This book is part of Ramus' campaign to improve the teaching of science and mathematics. He was of the opinion that science in general, and in particular mathematics, had lost its focus on practical needs. The teaching of the arithmetic of Boethius had concentrated attention on the properties of numbers to such an extent that practical arithmetic and geometric skills had been neglected. This text on geometry was designed to correct that situation. It deals first with arithmetic, and then the last three quarters are devoted to geometry, with a heavy emphasis on the calculation of areas, volumes and surveying. Many geometric diagrams are used to illustrate the text, and the section on surveying gives a number of practical applications. His teaching, however, was anti-establishment in nature, for he attacked Aristotle, particularly his logic, and defended a thesis in which the works of Aristotle (and particularly his contemporary followers) were brought into question. After he published these views in *Aristotelicae animadversiones*, he was forbidden by Francis I to teach and publish philosophy. Because of this ban, Ramus turned to the study and teaching of mathematics. He was reinstated in 1547 and thereafter managed to rise swiftly in French academic circles, due in part to the vacancies caused by the plague. He continued to have problems with the authorities because of his views and in 1562 left the Catholic Church and

converted to Calvinism. He was killed as part of the St. Bartholomew's Day Massacre, despite having explicit royal protection. There is some reason to believe his death was at the hands of assassins hired by his academic rivals" - Tomash & Williams.

Provenance: Library of the Franciscan Minims, Tyrol, Austria (ink stamps).

£750 - 1,000

237

**Ramus (Petrus)** SCHOLARUM MATHEMATICARUM, LIBRI UNUS ET TRIGINTA, FIRST EDITION, *woodcut device on title, woodcut initials and a few diagrams, some light foxing, browning and water-staining, creases to some leaves, inscription and ink library stamps to title, modern vellum-backed marbled boards, [Tomash & Williams R10; Smith, Rara arithmetica, p.335; VD16 L534], 4to, Basel, Heirs of Eusebius & Niklaus Bischoff, 1569.*

\*\*\* "This book, consisting of thirty-one chapters, was part of Ramus' attempt to reform the teaching of mathematics. The first three chapters deal with the history of mathematics, mainly from the time of the Greeks, and were actually published two years previously, in 1567, as *Proemium mathematicarum*. The next two chapters are a commentary on one of Ramus' earlier works, *Arithmetica* (an elementary text on arithmetic), first published in 1555 but with many editions since that date. Chapters 6 to 31 are a commentary on Euclid's *Elements*, with Ramus pointing out the useful applications. In a remarkable eight-page preface to this work, Ramus addresses Catherine de' Medici and pleads with her to provide a building for the professors of what came to be called the Collège de France. He indicates that this building is needed so that the professors would no longer have to lecture in the back streets of Paris. He also asks that she follow the lead of her Italian relatives and put her personal library in this new building rather than keeping it in the provinces. Ramus was well aware of the library and the current situation of the queen mother because he had taken shelter with her

when, in 1562, his Protestant beliefs caused him to be driven out of Paris" (Tomash & Williams).

Provenance: Library of the Franciscan Minims, Tyrol, Austria (inscription on title: Ex lib F.F. Mm Ref Bibliothek der P.P. Franciscaner in Hall, and later ink stamps).

£750 - 1,000

**238**

**Rea (Roger)** THE SECTOR AND PLAIN SCALE COMPARED, FIRST EDITION, *title within double-ruled woodcut border, 3 folding woodcut plates, contemporary calf, some splitting to joints, extremities a little rubbed*, [Tomash & Williams R18], *J. Cluer for the author, 1717*; and another, Stone on sectors, 8vo (2)

\*\*\* Rare.

£150 - 200

**239**

**Recreational and amateur mathematics.-**

**Arnoux (Gabriel)** ARITHMÉTIQUE GRAPHIQUE. LES ESPACES ARITHMÉTIQUES HYPERMAGIQUES, *folding plate, Paris, 1894* BOUND WITH Arithmétique graphique. Introduction a l'étude des fonctions arithmétiques, *Paris, Gauthier-Villars, 1906* AND Arithmétique graphique. Les espaces arithmétiques, leurs transformations, *Paris, Gauthier-Villars, 1908*, together 3 works in 1 vol., FIRST EDITIONS, *half-titles, later cloth-backed boards* § De Morgan (Augustus) A budget of paradoxes, FIRST EDITION, *original cloth, spine darkened, spine ends and corners a little bumped and worn*, Longmans, Green & Co., 1872, [Tomash & Williams A101, A102, A103 & D33]; and 3 others, similar, 8vo (5)

£120 - 180

**240**

**Recreational and amateur mathematics.-**

**Hutton (Charles)** RECREATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, *illustrations, advertisements at front, original cloth, spine faded, spine ends and corners a little bumped and worn*, [Toole Stott 523], 1840 § Tissandier (Gaston) Les récréations scientifiques ou l'enseignement par les jeux, *fourth edition, 4 colour plates, illustrations, contemporary*

*morocco prize binding, gilt, g.e., Paris, G. Masson, 1884*, [Tomash & Williams H196 & T43]; and 4 others, similar, 8vo (6)

£150 - 200

**241**

**Roget (Peter Mark)** DESCRIPTION OF A NEW INSTRUMENT FOR PERFORMING MECHANICALLY THE INVOLUTION AND EVOLUTION OF NUMBERS, *extract from "Philosophical Transactions of the Royal Society of London"*, vol. 105, pp.9-28, 3 *engraved plates (2 folding, 1 trimmed at outer margin), disbound*, [Tomash & Williams R104], 4to, [1815].

\*\*\* "It was Roget who invented the concept of the log-log scale that was later universally adopted as one of the standard scales on a slide rule. Its value was not immediately appreciated because the need for this scale only became apparent when various formulae, containing non-integer exponents in thermodynamics were developed. Roget's scale was forgotten, and various unwieldy schemes were proposed for handling the until Roget's scale was rediscovered in 1901." - Tomash & Williams.

£200 - 300

**242**

**Rudd (Capt. Thomas)** PRACTICAL GEOMETRY, IN TWO PARTS: THE FIRST, SHEWING HOW TO PERFORM THE FOURE SPECIES OF ARITHMETICKE. THE SECOND, CONTAINING A HUNDRED GEOMETRICALL QUESTIONS ... A WORKE VERY NECESSARY FOR ALL MEN, FIRST EDITION, *title within decorative woodcut border (tightly bound at inner margin), woodcut initials, head- and tail-pieces and diagrams, a few minor repairs to endpapers, bookplate and "Conservation Record" to pastedown and endpapers, modern calf preserving contemporary upper cover*, [Tomash & Williams R122; Wing R2170], 4to, Richard Leybourn for Robert Boydell, 1650.

\*\*\* The rarer of the two imprints (although both scarce at auction).

Provenance: Turner Collection, University of Keele (bookplate).

£400 - 600



# Forum Auctions

**243**

**Sand clocks.- Radi (Arcangelo Maria)** NUOVA SCIENZA DI HOROLOGI A POLVERE CHE MOSTRANO E SUONANO DISTINTAMENTE TUTTE L'HORE, FIRST EDITION, *title within engraved architectural border, 3 engraved plates, woodcut initials, occasional scattered spotting or very light browning, staining to endpapers, contemporary limp boards, rubbed, a few neat repairs*, [Riccardi ii, 332; Tomash & Williams R2], 4to, Rome, Fabio di Falco for Ponzio Bernandon, 1665.

\*\*\* "This is the first (and perhaps the only) work on sand clocks. It describes a time-keeping mechanism, driven by weights, that is regulated by a large revolving drum gradually spilling sand from one chamber into another. The mechanism includes a system to sound the hours by striking a bell" - Tomash & Williams.

£750 - 1,000

**244**

**Scheffelt (Michael)** INSTRUMENTUM PROPORTIONUM. DAS IST: VIEL VERMEHRT GRUNDLICH UND SEHR DEUTLICHER UNTERRICHT, WIE DURCH DEN SO GENANNTEN PROPORTIONAL ZIRKUL, FIRST EDITION, *title printed in red and black, woodcut initials, head- and tail-pieces, 12 engraved folding plates, spotting, ink name to title, later half vellum, modern label to spine, a little rubbed*, [Tomash & Williams S26; VD17 3:308564V], 4to, Ulm, for the Author, 1697.

\*\*\* Important work on the sector that would run to a number of editions. Included are scales for arithmetic, trigonometry, geometrical drawing and the military scales for fortification and solving the calibre problem.

£400 - 600

**245**

**Scheffelt (Michael)** PES MECHANICUS ARTIFICIALIS, ODER NEU-ERFUNDENER MASS-STAB AUF WELCHEM ALLE PROPORTIONES DER GANTZEN MATHESIOS OHNE MUHSAMES RECHNEN, FIRST EDITION, *Gothic letter, title printed in red and black, woodcut initials and head-pieces, engraved frontispiece and 11 plates, spotting, ink stamp to title, modern*

*antique-style vellum ink lettering to spine, preserved in custom drop-back box*, [Tomash & Williams S31; VD17 39:121551N], 4to, Ulm, Wagner, for the author, 1699.

\*\*\* Provenance: "Ex bibliotheca Viennensi" (ink stamp).

£200 - 300

**246**

**Scheffelt (Michael)** PES MECHANICUS ARTIFICIALIS, ODER NEU-ERFUNDENER MASS-STAB, FIRST EDITION, *engraved frontispiece and 11 folding plates mounted on stubs, Ulm, Wagner, for the Author*, 1699 BOUND WITH Instrumentum proportionum, oder Unterricht vom Proportional-Zirkul, *second edition, 12 folding engraved plates mounted on stubs, occasional browning, Ulm, Daniel Bartholomaeus*, 1708, together 2 works in 1 vol., *Gothic letter, titles in red and black, woodcut initials and head-pieces, pencil notes to pastedown, contemporary vellum*, [Tomash & Williams S32 & S27; VD17 39:121551N & VD18 11004266], 4to.

\*\*\* Provenance: Cyril Ernest Kenney (1898-1973, book label)

£300 - 400

**247**

**Scheffelt (Michael)** PES MECHANICUS ARTIFICIALIS, ODER NEU-ERFUNDENER MASS-STAB AUF WELCHEM ALLE PROPORTIONES DER GANTZEN MATHESIOS OHNE MUHSAMES RECHNEN, FIRST EDITION, *engraved frontispiece and 11 plates (one folding with neat repair), Ulm, Wagner, for the Author*, 1699 BOUND AFTER Instrumentum proportionum, oder Unterricht vom Proportional-Zirkul, *second edition, 12 engraved plates, Ulm, Daniel Bartholomaeus*, 1708, together 2 works in 1 vol., *Gothic letter, titles printed in red and black, woodcut initials and head-pieces, occasional foxing or light browning, bound in old parchment manuscript leaf, spine a little chipped*, [Tomash & Williams S27 (footnote) & S33; VD18 11004266 & VD17 39:121551N], 4to.

\*\*\* Provenance: inscription on title-page dated Helmstedt, 1788.

£300 - 400



# Forum Auctions

**248**

**Scheffelt (Michael)** INSTRUMENTUM PROPORZIONUM, ODER UNTERRICHT VOM PROPORZIONAL-ZIRKUL, *third edition, Gothic letter, title printed in red and black, 12 engraved folding plates mounted on stubs, contemporary half vellum, rubbed, preserved in custom drop-back box, [Tomash & Williams S28; not in VD18], 4to, Ulm, Daniel Bartholomaeus und Sohn, 1738.*

\*\*\* Provenance: Joseph Rosenlecher, 1786 (inscription).

£150 - 200

**249**

**Scheffelt (Michael)** UNTERRICHT VOM PROPORZIONALZIRKEL. NEUE, DURCHGEHENDS UMGEARBEITETE UND MIT EINER HISTORISCHEN EINLEITUNG VERMEHRTE AUFLAGE, VON JOHANN EPHRAIM SCHEIBEL, *Gothic letter, 8 engraved folding plates, occasional foxing or browning, title with ink stamp to verso and ink inscription to recto, bookplate to pastedown, contemporary boards, rather rubbed and soiled, [T&W S30 (or S34, a duplicate entry); VD18 13411578], Breslau, Johann Friedrich Korn, 1781; Instrumentum proportionum..., Gothic letter, title printed in red and black with woodcut decoration, woodcut initials, head- and tail-pieces, 12 engraved folding plates, a few ff. with upper corners repaired, later boards, [T&W S29; VD18 13578731], Ulm, Daniel Bartholomaeus und Sohn, 1755, 4to (2)*

£150 - 200

**250**

**Schooten (Frans van)** TABULAE SINUUM TANGENTIUM SECANTIUM AD RADIUM 10000000, FIRST LATIN EDITION, *engraved title with printed overslip in Latin, "nota" leaf at end, bookplate of Harrison D. Horblit to pastedown, contemporary vellum, lacking ties, Amsterdam, Blaeu, 1627 § Vlacq (Adriaan) Tables de sinus, tangentes, secantes: et logarithmes de sinus, tangentes, & nombres depuis l'unité jusques à 10000, diagrams, occasional browning, contemporary vellum, printed paper label to spine, Leiden, Philippe*

*de Croy, 1651, [Tomash & Williams S46 & V25]; and 5 others, tables by the same and similar, 12mo & 8vo (7)*

£150 - 200

**251**

**Schooten (Frans van)** TABULAE SINUUM TANGENTIUM SECANTIUM AD RADIUM 10000000; MET 'T GEBRUYCK DER SELVE IN RECHTLINISCHE TRIANGULEN, FIRST FRENCH EDITION, *engraved title, light dampstaining to head, book label of Harrison D. Horblit to pastedown, contemporary vellum, Amsterdam, Willem Jansz Blaeu, 1627 § Ordre nouveau, et plus facile que les autres, des tables des sinus, tangentes & secantes, title with woodcut device, ink stamps to foot of title, contemporary vellum, upper joint repaired at foot, Lyon, Claude Rigaud & Claude Obert, 1628 § La Caille (Nicolas-Louis de) Tables de logarithmes pour les sinus & tangentes de toutes les minutes du quart de cercle, & pour tous les nombres naturels depuis 1 jusqu'à 10800, first edition, contemporary calf, joints cracked but holding firm, Paris, Hippolyte-Louis Guérin & L.F. Delatour, 1760, [Tomash & Williams S47, M62 & L1]; and 3 others, tables by the same and similar, 12mo & 8vo (6)*

£150 - 200

**252**

**Schott (Gaspar)** CURSUS MATHEMATICUS, SIVE ABSOLUTA OMNIUM MATHEMATICARUM DISCIPLINARUM ENCYCLOPEDIA, FIRST EDITION, *double column, woodcut initials, head- and tail-pieces and diagrams, engraved additional title page, folding engraved table and 41 plates (some folding), engraved title cropped at outer margin, small ink stamp to printed title, browning, heavy in places, later vellum, title in manuscript on spine, a little soiled, endpapers renewed, preserved in custom drop-back box, [Tomash & Williams S54; VD17 12:196809B], folio, Wurzburg, Heirs of Martin Schonwetter, 1661.*

\*\*\* Includes chapters on varied subjects such as astronomy, geography, horology, mechanics, hydrostatics, optics, military architecture, music and surveying.



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Provenance: "Colloredo" (ink stamp to title).

£300 - 400

**253**

**Schott (Gaspar)** MATHESIS CAESAREA, SIVE AMUSSIS FERDINANDEA... NUNC SECUNDA HAC EDITIONE SCHOLIIS, PROBLEMATIBUS, & NOVIS ICONISMIS EXORNATA, *half-title, engraved frontispiece, woodcut initials, head- and tail-pieces, 17 engraved plates (4 folding), engraved illustrations, folding letterpress table, spotting and occasional browning, the odd short tear or minor marginal defect to plates, a few plates closely shaved, 20th century calf, gilt, spine faded, [Tomash & Williams S56], 4to, Wurzburg, Johann Jobst Hertz for the widow and heirs of Johann Godefrid Schonwetter, 1662.*

\*\*\* A revised version of Albert Curtz's *Amussis Ferdinanda*, published Munich, 1654.

Provenance: Thomas Wentworth, 1st Earl of Strafford (1672-1739), signature on half-title, Cambridge, 1711; William Charles de Meuron Wentworth-Fitzwilliam, 7th Earl Fitzwilliam (1872-1943), armorial bookplates.

£1,000 - 1,500

**254**

**Schott (Gaspar)** CURSUS MATHEMATICUS, SIVE ABSOLUTA OMNIUM MATHEMATICARUM DISCIPLINARUM ENCYCLOPEDIA, *third edition, double column, woodcut initials, head- and tail-pieces and diagrams, engraved additional title page, folding engraved table and 41 plates (one folding), foxing and browning, occasional dampstaining to margins, contemporary blind-stamped pigskin over bevelled wooden boards, metal clasps, [Tomash & Williams S55; VD17 39:124545Z], Bamberg & Frankfurt Am Main, Johann Martin Schönwetter, 1677.*

£300 - 400

**255**

**Schott (Gaspar)** TECHNICA CURIOSA, SIVE MIRABILIA ARTIS: LIBRIS XII COMPREHENSATA, 2 vol., *second edition, half-title, printed title in red and black with engraved portrait of the*

*dedicatee on verso, engraved additional title, 60 engraved plates on 58 sheets, a few closely trimmed, half-title and engraved title holed by an inkblot, occasional light foxing or offsetting, modern speckled boards, [Tomash & Williams S60; VD17 23:269555T], 4to, Würzburg, Johann Jobst Hertz, Johann Andreas Endter & Wolfgang Endter, 1687.*

\*\*\* "This two-volume work was Schott's description of the latest technological wonders and experiments... It includes hundreds of devices used in pneumatics, water movement, time keeping, cabalistic and secret writings, etc. The most famous section deals with the experiments of Otto van Guericke with vacuums." - Tomash & Williams.

£1,000 - 1,500

**256**

**Schwenter (Daniel)** DELICIAE PHYSICO-MATHEMATICAE. ODER MATHEMAT: UND PHILOSOPHISCHE ERQUICKSTUNDEN, *engraved title page (edges strengthened and repaired with some minor loss to image), woodcut initials, head- and tail-pieces, and numerous illustrations, second ff. repaired at head, 3N3 lower corner repaired, occasional browning, modern half calf, [Tomash & Williams S67], 4to, Nuremberg, Jeremias Dümmler, 1636.*

\*\*\* A popular encyclopedic work of recreational mathematics, including, apparently, the first illustration of a fountain pen on p.520.

£400 - 600

**257**

**Schwenter (Daniel)** DELICIAE PHYSICO-MATHEMATICAE, *Gothic letter, engraved title (margins neatly strengthened and repaired), woodcut initials, head- and tail-pieces, diagrams and illustrations, [VD17 39:118084E], Nuremberg, Jeremias Dümmler, 1651 § Harsdörffer (Georg Philipp) Delitatae Mathematicae et Physicae der Mathematischen und Philosophischen Erquickstunden. Zweiter Theil, Gothic letter, engraved title, woodcut initials, head- and tail-pieces, diagrams and illustrations,*



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woodcut volvelle and folding plate, occasional worming to foot, [VD17 39:118095U], Nuremberg, Jeremias Dümler, 1651, ink ownership inscriptions to titles, uniform 20th century brown crushed morocco, [Tomash & William S69], small 4to.

\*\*\* Provenance: Henrich Wilhelm Stiekaus, 1738 (ink ownership inscriptions).

£400 - 600

**258**

**Sems (Johan)** PRACTICA DES LANDMESSENS.

DARINNEN GELEHRT WIRD, WIE MAN ALLE RECHT UND KRUMSEITEGE LAND, WÄLDT, BAUMGÄRTEN UND ANDERE FELDER, SO WOL MIT HÜLFF DES QUADRANTEN ALS OHNE DENSELBN MESSEN SOLL, translated by Sebastian Curtius, FIRST GERMAN EDITION, *Gothic letter, title with engraved vignette, woodcut initials and diagrams, folding engraved plate, occasional light browning, 20th century half vellum*, [Tomash & Williams S84; VD17 39:121321G], small 4to, Amsterdam, Willem Jansz Blaeu, 1616.

\*\*\* "Sems and Dou were surveyors in Leiden. Dou was also well known to be a skilled cartographer... This book and its companion (*Von dem gebrauch der geometrischen instrumenten*, 1616) form a single work on the theory and practice of surveying. The two were issued separately, but simultaneously, and are quite often found bound together." - Tomash & Williams.

£500 - 700

**259**

**Sems (Johan) and Jan Pietersz Dou.** VON DEM GEBRAUCH DER GEOMETRISCHEN INSTRUMENTEN.

DURCH WELCHEN GELEHRT WIRD ALLE LENGEN, BRAITEN, WEITEN, HÖCH UND TIEFFEN, SO WOL OHNE CALCULATION, ALS MIT HULFF DER SELBN ABMÄSSEN. AUCH CARTEN MACHEN, SO WOL VON GANTZE(N) LANDSCHAFTEN, *Gothic letter, woodcut initials and diagrams, 6 engraved folding plates, occasional light browning to text, modern half calf*, [Tomash & Williams S85; VD17 39:119353Y], small 4to, Amsterdam, Willem Jansz Blaeu, 1616.

£500 - 700

**260**

**Smith (Thomas)** QUORUNDAM ERUDITISSIMORUM ET ILLUSTRUM VIRORUM. QUORUM NOMINA EXSTANT IN PAGINA SEQUENTI, FIRST EDITION, *engraved portrait frontispiece, title with woodcut portrait of Erasmus, woodcut initials and head-pieces, contemporary speckled calf, spine gilt, some cracking to head and foot of joints*, [Tomash & Williams S151], 4to, David Mortier, 1707.

£100 - 150

**261**

**Smith (David Eugene)** THE SUMARIO COMPENDIOSO OF BROTHER JUAN DIEZ - THE EARLIEST MATHEMATICAL WORK OF THE NEW WORLD, SIGNED PRESENTATION INSCRIPTION FROM THE AUTHOR *to endpaper, illustrations, original boards, slip-case (a little chipped and worn)*, Chicago, 1914; Historical-mathematical Paris, 1 OF 35 COPIES ON JAPON, ADDITIONALLY INSCRIBED BY THE AUTHOR AND BEGINNING AND END, *contemporary boards, spine ends chipped, original wrappers bound in, Paris, Les Presses Universitaires de France*, 1924; Mathematics and poetry, *signed by the author at end, original marbled boards, Florence, for the author*, 1922, [Tomash & Williams S148, S132 & S137]; and 5 others by the same, 8vo (8)

£100 - 150

**262**

**Stadius (Johannes)** TABULAE BERGENSES AEQUABILIS ET APPARENTIS MOTUS ORBIUM COELESTIUM... ITEM DE FIXIS STELLIS COMMENTARIUS, FIRST EDITION, *woodcut portrait vignette on title, woodcut initials and tables, browning and dampstaining, contemporary vellum, rebacked, extremities repaired, soiled*, [Tomash & Williams S176; VD16 S8483], folio, Cologne, heirs of Arnold Birckmann, 1560.

\*\*\* A compendium of astronomical tables, named after the author's patron, the prince Bishop of Liège, Robert de Bergues, in pompous imitation of the Alfonsine tables. It includes "De fixis stellis commentarius" an update of Ptolemy's astrological star catalogue for 1560.

£350 - 450



# Forum Auctions

**263**

**Statistics.- William (Farr)** VITAL STATISTICS: A MEMORIAL VOLUME OF SELECTIONS FROM THE REPORTS AND WRITINGS OF WILLIAM FARR, FIRST EDITION, *portrait frontispiece, ex-library copy with ink stamps to title and elsewhere, original cloth, rebaked, preserving original backstrip, wear to extremities, [not in Tomash & Williams], 1885 § Charting courses, limited edition, plates and illustrations, folding table, original pictorial boards, spine chipped at head, New York Recording & Statistical Corporation, 1931, [Tomash & Williams R45]; and another, statistics, 8vo (3)*

£80 - 120

**264**

**Stone (Edmund)** A NEW MATHEMATICAL DICTIONARY, FIRST EDITION, *woodcut initial, head-piece and diagrams, errata f., 2pp. advertisements, bookplate to pastedown and endpaper, contemporary panelled calf, a little rubbed, [Tomash & Williams S201], 8vo, J. Senex and others, 1726.*

\*\*\* Rare. The self-taught Stone became a member of the Royal Society in 1728, his *Mathematical Dictionary* would run through a number of editions and was used as a source by Johnson in compiling his *Dictionary of the English Language*.

Provenance: James Rigg; Turner Collection, Keele University (bookplates)

£300 - 400

**265**

**Sundials.- Clavius (Christoph)** GNOMONICES LIBRI OCTO, FIRST EDITION, *title within engraved architectural border, woodcut initials, head- and tail-pieces and diagrams, printers device above colophon, occasional very light marginal dampstaining and minor browning, bookplates and book labels to pastedown, ink stamp to title and final f., contemporary vellum, title in manuscript to spine, joints splitting, a few wormholes to covers, lacking 4 pairs of ties, [Edit16 12671; Tomash & Williams C101], folio, Rome, Francesco Zanetti, 1581.*

\*\*\* First edition of the most important and

substantial work on gnomonics published to that date.

Provenance: "Abbatiae Carcerum" (i.e. the abbey of Santa Maria delle Carceri (near Padua), engraved bookplate on inside covers); Rev. Antonio de Lazzaris, canon of the Congregation of San Giorgio (inscription on inside front cover); "TA" (red monogram stamp).

£400 - 600

**266**

**Sundials.- Guerrino (Tommaso)** TAVOLE GNOMONICHE PER DISEGNARE IN DIVERSI MODI GLI OROLOGI SOLARI SOPRA PIANI ORIZZONTALI, E VERTICALI, FIRST EDITION, *engraved portrait frontispiece, one folding woodcut plate, woodcut illustrations and diagrams, one with printed extension (p.28), one leaf blank apart from volvelle (p.33), a few corrections made by use of printed overlays, occasional light marginal soiling, ink notes in an early hand to front free endpaper, floral paper pastedowns, contemporary vellum, Latin motto to upper cover, repairs to spine ends, modern label to spine, [Riccardi i, 638; Tomash & Williams G98], folio, Milan, Pietro Agnelli, 1762.*

\*\*\* Guerrino's treatise on sundials, with extensive astronomical tables.

Provenance: Teodoro Arrighi (inscription on title-page).

£750 - 1,000

**267**

**Sundials.- Penther (Johann Friedrich)** GNOMONICA FUNDAMENTALIS & MECHANICA, *Gothic letter, woodcut initials, head- and tail-pieces, engraved folding frontispiece (bound at rear) and 15 folding plates, the odd splash mark, modern half vellum, [Tomash & Williams P37; not in VD18], folio, Augsburg, Johann Michael Späth for Johann Georg Hertel, 1768.*

£150 - 200

**268**

**Surveying.- Wing (Vincent)** GEODÆTES PRACTICUS: OR, THE ART OF SURVEYING, FIRST EDITION, *woodcut initials head- and tail-pieces,*

*tables and diagrams, 2 engraved plates (1 folding), H6 a cancel (stub visible), occasional light spotting, 20th century calf, [Tomash & Williams W91; Wing W2991], 8vo, William Leybourn for George Sawbridge, 1664.*

\*\*\* Rare. One of the first books of surveying to be written for use as a handbook.

£400 - 600

**269**

**Surveying.- Wyld (Samuel)** THE PRACTICAL SURVEYOR, *engraved folding frontispiece and 5 folding plates, woodcut initials, head- and tail-pieces, occasional browning, contemporary sheep, rebacked, preserving original backstrip, 8vo, J. Hooke and J. Sisson, 1725.*

£100 - 150

**270**

**Tables & ready reckoners.- Baily (Francis)** ASTRONOMICAL TABLES AND FORMULAE, PRESENTATION COPY TO THE ROYAL INSTITUTE, *contemporary cloth, rebacked, 1827 § Preston (Lyman) Preston's complete time table..., foxing, 20th century half cloth over old boards, rubbed, New York, Wood, 1836 § Martin (C. François) Le régulateur universel des poids et mesures, 2 folding tables, regulateur in pocket at front (title-page calls for one regulateur), modern boards, Avignon and Paris, Berenguier and Courcier, 1809, [Tomash & Williams B76, P111 & M47]; and 17 others, similar, v.s. (20)*

£80 - 120

**271**

**Tables & ready reckoners.- Muller (John)** INDIAN TABLES FOR THE CONVERSION OF INDIAN MUN, *tables some folding, contemporary half calf, rebacked and recorned, rubbed and worn, Calcutta, Commercial Press, 1836 § Cullyer (John) The gentleman's & farmer's assistant; containing... tables, eighth edition, notes to endpapers, portion of front free endpaper torn away, contemporary sheep, modern label to spine, Stevenson, 1816 § Lindenau (Bernhard August von) Tables barométriques, some light spotting, contemporary cloth-backed boards, Gotha, R. Z. Becker, 1809, [Tomash & Williams*

*M146, C208 & L116]; and 17 others, similar, v.s. (20)*

£80 - 120

**272**

**Tables & ready reckoners.- Stowe (W. E.)**

TIME TABLES SHEWING WITHOUT MENTAL CALCULATION THE NUMBER OF DAYS FROM ANY GIVEN DAY IN ANY MONTH, TO EVERY DAY IN ANY OTHER MONTH DURING A YEAR, *lithographed tables throughout with movable tabs, original cloth, rebacked, soiled, 1848 § Scribner (John M.) The ready reckoner..., fourth edition, foxing, original cloth-backed boards, rubbed, Rochester, Fisher, 1846 § Martin (C. François) Le régulateur universel des poids et mesures, second edition, regulateur in pocket at front (title page calls for two regulateurs), folding tables, signed by the author on title verso, contemporary calf, spine gilt, Bordeaux, Avignon & Paris, J. Foulquier, M. Ray, M. Courcier, 1809, [Tomash & Williams S202, S73 & M47]; and 17 others, similar, v.s. (20)*

£80 - 120

**273**

**Textbooks.- Daboll (Nathan)** DABOLL'S

SCHOOLMASTER'S ASSISTANT: IMPROVED AND ENLARGED, BEING A PLAIN PRACTICAL SYSTEM OF ARITHMETIC, *ink inscription, browning, contemporary sheep, rubbed and scuffed, New London, CT, Samuel Green, 1815 § Davies (Charles) First lessons in geometry, foxing, ink inscriptions, contemporary sheep, rubbed and scuffed, Hartford, CT, A.S. Barnes, 1839 § Dilworth (Thomas) The schoolmaster's assistant, being a compendium of arithmetic, staining, contemporary calf, rebacked, rubbed, Brooklyn, Pray and Bowen, 1814 § Stevens (Beriah) A new and concise system of arithmetic, foxing and browning, contemporary sheep, rubbed and scuffed, Saratoga Springs, NY, for the author, 1822, [Tomash & Williams D1, D15, D55 & S184]; and 18 others, similar, textbooks, 8vo (22)*

£80 - 120





# Forum Auctions

**274**

**Textbooks.- Holbrook (Nelson M.)** THE CHILD'S FIRST BOOK IN ARITHMETIC, *light marginal dampstaining, original cloth-backed pictorial boards, stained and worn*, [Tomash & Williams H148], Portland, Bailey & Noyes, [1849 or later] § Davies (Charles) The university arithmetic, *occasional foxing or soiling, contemporary roan, scuffed, new endpapers*, [Tomash & Williams D17], New York, A.S. Barnes, 1847 § Emerson (Frederick) The North American arithmetic. Part second, *foxing, original boards, rebacked*, Philadelphia, Hogan & Thompson, [after 1834]; The North American arithmetic. Part third, *contemporary sheep, upper joint cracked*, [Tomash & Williams E7], Boston, Jenks and Palmer, 1845; Key to the North American arithmetic. Part second and part third, *staining, contemporary roan-backed boards, rubbed and scuffed*, Boston, Tappan & Whittemore, 1854; and 18 others, similar, textbooks, 8vo (23)

£80 - 120

**275**

**Textbooks.- Ostrander (Tobias)** A COMPLETE SYSTEM OF MENSURATION OF SUPERFICIES AND SOLIDS, OF ALL REGULAR FIGURES, *foxing, ink inscriptions, lacking front free endpaper, original boards, worn and soiled, preserved in custom drop-back box*, New York, M'Elrath, Bangs & Co., 1833 § Colburn (Warren) Colburn's first lessons. Intellectual arithmetic, *foxing, contemporary calf-backed boards, rubbed and worn*, Bellows Falls, VT, James Cutler & Son, 1828 § Davies (Charles) Arithmetic, designed for academies and schools, *spotting, original morocco-backed boards*, New York, A.S. Barnes, 1846 § Shaw (Oliver A.) Arithmetic Philosophically Taught; or a description of the visible numerator, with instructions for its use, *foxing and occasional browning, original cloth-backed boards*, Boston, T. R. Marvin, 1832, [Tomash & Williams O32, C114, D13 & S104]; and 18 others, similar, textbooks, 8vo (22)

£80 - 120

**276**

**Time measurement.- Brearley (Harry C.)** TIME TELLING THROUGH THE AGES, *24 plates, original buckram-backed boards*, New York, 1919 § Nilsson (Martin P.) Primitive Time-Reckoning, *Franklin Institute library stamps to title and bookplate to pastedown, later half cloth*, Lund, Gleerup, 1920 § De Morgan (Augustus) The book of almanacs, *soiling, hinges and endpapers repaired, Franklin Institute library bookplate, original cloth, rebacked, extremities rubbed*, Taylor, Walton and Maberly, 1851, [Tomash & Williams B234, N41 & D32]; and 2 others, similar, 8vo (5)

£80 - 120

**277**

**Time measurement.- Ungerer (Alfred)** LES HORLOGES ASTRONOMIQUES ET MONUMENTALES LES PLUS REMARQUABLES DE L'ANTIQUITÉ JUSQU'À NOS JOURS, FIRST EDITION, *illustrations, later green cloth*, Strasbourg, 1931 § Littrow (Joseph Johann von) Calendariographie oder Anleitung alle Arten Kalender zu verfertigen, *Gothic letter, Library of Congress duplicate stamp to endpaper, library cloth*, Vienna, J. G. Heubner, 1828, [Tomash & Williams U2 & L118]; and 2 others, similar, 4to & 8vo (4)

£80 - 120

**278**

**Tomash (Erwin) and Michael R. Williams.** THE ERWIN TOMASH LIBRARY ON THE HISTORY OF COMPUTING : AN ANNOTATED AND ILLUSTRATED CATALOG, 3 vol., *illustrated throughout, original wrappers, slip-case*, 4to, Novato, CA, 2009.

£100 - 150



# Forum Auctions

**279**

**Vega (Georg, Freiherr von)** LOGARITHMISCHE, TRIGONOMETRISCHE, UND ANDERE ZUM GEBRAUCHE DER MATHEMATIK EINGERICHTETE TAFELN UND FORMELN, FIRST EDITION, *title within decorative woodcut border, tables, contemporary half calf, rubbed*, [Tomash & Williams V6; VD18 15334872], 8vo, Vienna, Johann Thomas Edlen von Trattner, 1783.

\*\*\* First edition of the first of Vega's famous sets of tables. Vega was so confident of their accuracy that he promised a gold ducat for every error brought to his attention.

£150 - 200

**280**

**Vega (Georg, Freiherr von)** THESAURUS LOGARITHMORUM COMPLETUS, EX ARITHMETICA LOGARITHMICA, ET EX TRIGONOMETRIA ARTIFICIALI ADRIANI VLACCI COLLECTUS... [PARALLEL TITLE IN GERMAN] VOLLSTAANDIGE SAMMLUNG GROSSERER LOGARITHMISCH-TRIGONOMETRISCHER TAFELN, NACH ADRIAN VLACK'S ARITHMETICA LOGARITHMICA UND TRIGONOMETRIA ARTIFICIALIS VERBESSERT, FIRST EDITION, *tables, errata with manuscript notes and additional small slip pasted in, lacking unnumbered leaf after errata, occasional spotting and browning, modern vellum-backed boards, preserved in custom drop-back box*, [Tomash & Williams V7; VD18 1474418X], Leipzig, Weidmann, 1794; Logarithmisch-trigonometrisches Handbuch, FIRST EDITIONS, *parallel titles in Latin and German, tables, errata at end, occasional foxing or browning, contemporary calf-backed boards, rubbed, later endpapers*, [Tomash & Williams V5; VD18 1024705X], Leipzig, Weidmann, 1793, folio & 8vo (2)

\*\*\* Both of these works would prove enormously popular, each running into hundreds of editions.

£150 - 200

**281**

**Vlacq (Adriaan)** ARITHMETIQUE LOGARITHMETIQUE OU LA CONSTRUCTION ET USAGE D'UNE TABLE CONTENANT LES LOGARITHMES DE TOUS LES NOMBRES DEPUIS L'UNITE JUSQUES A 100000, FIRST EDITION IN FRENCH, *title printed in red and black,*

*woodcut initials and head-pieces, diagrams and tables, occasional browning, 20th century antique-style calf, preserved in custom drop-back box*, [Tomash & Williams V22], folio, Gouda, Pierre Rammasien, 1628.

\*\*\* Vlacq's famous tables that would, along with those of Henry Briggs, form the basis from which almost all other logarithm tables were produced. The tables here were printed in the same run as those from the Latin 'true' first edition from the same year.

£300 - 400

**282**

**Vlacq (Adriaan)** TRIGONOMETRIA ARTIFICIALIS: SIVE MAGNUS CANON TRIANGULORUM LOGARITHMICUS, AD RADIUM 100000,00000, FIRST EDITION, *half-title, woodcut diagrams, ink inscription to dedication f. "Ex libris monasterii S. Petri Melodunensis... 1655", bookplate of Turner Collections, University of Keele to pastedown, later library buckram, Gouda, Pieter Rammazeyn, 1633* § Callet (Jean-François) and William Gardiner. Tables portatives de logarithmes, contenant les logarithmes des nombres, depuis 1 jusqu'à 108000, *half-title, upper hinge cracked, contemporary calf, gilt, rubbed, g.e., Paris, Firmin Didot, 1795* § Bord (Charles de) and Jean Baptiste Joseph Delambre. Tables trigonométriques décimales, *contemporary half calf, spine rubbed, upper joint cracked at head, Paris*, [1801], [Tomash & Williams V30, C15 & B207]; and 2 others, tables by the same or similar, v.s. (5)

£200 - 300

**283**

**Vlacq (Adriaan)** TABULAE SINUUM TANGENTIUM ET SECANTIUM: ET LOGARITHMI SINUUM TANGENTIUM, ET NUMERORUM AB UNITATE AD 10000, *title with woodcut device, diagrams, ink signatures to title, occasional browning, contemporary vellum*, [Tomash & Williams V26], 8vo, Leiden, Philippe de Croy, 1651.

\*\*\* The Latin issue of Vlacq's famous tables with an excellent provenance. The title is inscribed "Bibl. S. Pantaleonis Scholarum Piarum" and "Ex. lib. Alph. Borelli" - this is Giovanni Alfonso Borelli (1608-1679),

physicist, mathematician and author of *De motu animalium* (Rome, 1680-1681).

£150 - 200

**284**

**Ward (John)** THE LIVES OF THE PROFESSORS OF GRESHAM COLLEGE: TO WHICH IS PREFIXED THE LIFE OF THE FOUNDER, SIR THOMAS GRESHAM. WITH AN APPENDIX, CONSISTING OF ORATIONS, LECTURES, AND LETTERS, WRITTEN BY THE PROFESSORS, WITH OTHER PAPERS SERVING TO ILLUSTRATE THE LIVES, FIRST EDITION, *engraved frontispiece (small portion of outer margin torn away) and 4 plates ( 2 folding), list of subscribers, some light offsetting, occasional marginal spotting, contemporary ink ownership inscription to head of title, contemporary calf, sympathetically rebacked, new endpapers, [Tomash & Williams W11], folio, John Moore for the Author, 1740.*

Provenance: "E Lib. Anton Scarlett Ao 1740" (ink inscription).

£100 - 150

**285**

**White (James)** A NEW CENTURY OF INVENTIONS, BEING DESIGNS & DESCRIPTIONS OF ONE HUNDRED... A NEW CENTURY OF INVENTIONS, BEING DESIGNS & DESCRIPTIONS OF ONE HUNDRED MACHINES, RELATING TO ARTS, MANUFACTURES, & DOMESTIC LIFE, *50 engraved plates, offsetting, original upper wrappers bound at rear, Wigan Public Library blindstamps, library cloth, [Tomash & Williams W43], 4to, Manchester, 1822.*

\*\*\* White's account of 100 inventions of his own design including an adding machine.

£150 - 200

**286**

**Wine barrels.- Kepler (Johannes)** AUSZUG AUSS DER VRALTEN MESSEKUNST ARCHIMEDIS, *Gothic letter, woodcut initials and diagrams (with an additional printed slip containing a reprint of the woodcut on K1r bound in), woodcut on F3v shaved at foot, occasional browning, bound in a vellum leaf a leaf from a fourteenth-century French canon law text, [Tomash & Williams K23; VD17 39:124695N], folio, Linz, Hans Blanck for the Author, 1616.*

\*\*\* A translation into German of *Nova stereometria*, Kepler's work on the gauging of wine barrels.

"Shortly after Kepler moved to Linz, there was a very good wine harvest, and to take advantage of it, he had a wine cellar installed in his home. He discovered that the volume of the wine barrels had been calculated simply by measuring their diagonal length and that no account had been taken of the variations in their shape. In attempting to recalculate the volumes, he developed a scheme in which he summed up the volumes of thin cross-sections of the barrels-an approach that foreshadowed the development of the calculus." - Tomash & Williams.

£4,000 - 6,000

**287**

**Wolff (Christian Johann von)** ZU DER TRIGONOMETRIE UND AUSZIEHUNG DER WURTZELN NÖTHIGE TAFELN, DARINNEN DIE SINUS UND TANGENTES FÜR JEDE MINUTE DES QVADRANTENS, *Gothic letter, engraved frontispiece, title in red and black, engraved plate, c.110 additional plates bound at end (one folding), later half vellum over marbled boards, preserved in custom drop-back box, [Tomash & Williams W105; VD18 1124139X], Halle, Johann Gottfried Renger, 1711; Tabulæ sinuum atque tangentium tam naturalium, quam artificialium, engraved frontispiece, title printed in red and black, engraved plate (edge-mounted), woodcut initials and head-pieces, modern boards using a leaf from an early printed book, [Tomash & Williams W106; VD18 1163135X], Frankfurt am Main & Leipzig, Simon Jakob Renger, 1728, 8vo (2)*

£100 - 150

**288**

**Wolff (Christian Johann von)** MATHEMATISCHES LEXICON, FIRST EDITION, *Gothic letter, title printed in red and black, diagrams and illustrations, engraved frontispiece, ink stamp and inscription to title, bookplate, contemporary calf, Leipzig, Johann Friedrich Gleditsch, 1716 § Heilbronner (Johann Christoph) Versuch einer mathematischen*

Historie, erster Theil, *Gothic letter, browning, eighteenth-century blue wrappers, uncut, preserved in custom drop-back box, Frankfurt und Leipzig, Samuel Wohler, 1739, [Tomash & Williams W104; H95], 8vo (2)*

£100 - 150

**289**

**Woodhouse (Robert)** THE PRINCIPLES OF ANALYTICAL CALCULATION, FIRST EDITION, *occasional light browning, occasional dampstaining to head, second and third ff. torn at inner margin, contemporary half calf, rebacked, rubbed, [Tomash & Williams W109], 4to, Cambridge, 1803.*

\*\*\* "...Woodhouse defended analytic methods, the differential notation, and a theory of calculus based, like that of Lagrange, on series expansions" - DSB.

£150 - 200

**290**

**Zubler (Leonhard)** NOVUM INSTRUMENTUM GEOMETRICUM: DAS IST KURTZER UNND GRUNDTLICHER BERICHT, ALLE WEITE, BREITE, HÖHE, UND TIEFFE, MIT SONDERBAREM VORTHEIL KUNSTLICHEN UND GEWISS AUCH VON DER ARITHMETIC UNERFAHRNEN ABZUMESSEN, *Basel, Ludwig König, 1607* BOUND WITH *Fabrica et usus instrumenti chorographici: Das ist Neue Planimetrische Beschreibung: Wie man mit einem leichten un[d] geringen Instrument alle Stätt Gärten Weyher und Landschafften jedes in sein gewisse Lägerstatt und Proportion auffreissen und verjüngen soll, Basel, Ludwig König, 1607, together 2 works in 1 vol., Gothic letter throughout, both works with titles printed in red and black within engraved architectural border with engraved arms on verso, woodcut initials and decorations, numerous engraved illustrations in the text, occasional light foxing and some soiling, 20th century half vellum, new label to spine, [Tomash & Williams Z11 & Z10; VD17 12:163928Q & 12:163800L], small 4to.*

\*\*\* Two of several works by the same author, an Austrian mathematician, instrument maker and goldsmith, on scientific instruments.

£500 - 700

**291**

**Zubler (Leonhard)** NOVUM INSTRUMENTUM GEOMETRICUM: DAS IST KURTZER UNND GRUNDTLICHER BERICHT, ALLE WEITE, BREITE, HOEHE, UND TIEFFE, MIT SONDERBAREM VORTHEIL KUNSTLICHEN UND GEWISS AUCH VON DER ARITHMETIC UNERFAHRNEN ABZUMESSEN, *Gothic letter, title printed in red and black within engraved architectural boarder, woodcut initials and decorations, numerous engraved illustrations, 1 full-page, light foxing or marginal dampstaining, small marginal repair to final f., 20th century vellum, a little soiled, [Tomash & Williams Z12; VD17 39:121596B], small 4to, Basel, Ludwig König, 1614.*

\*\*\* Provenance: Cyril Ernest Kenney (1898-1973, book label to pastedown).

£150 - 200

**292**

**Zucchetto (Giovanni Battista)** PRIMA PARTE DELLA ARIMMETICA, part 1 [all published], FIRST EDITION, *title with engraved architectural border and portrait of the author, engraved portrait of the dedicatee Christopher Papa of Nuremberg to \*2, contemporary printed corrections slip mounted on contents f. 2\*3, woodcut initials, head- and tail-pieces, occasional scattered foxing, occasional marginal dampstaining, seventeenth-century vellum, a little browned, preserved in custom drop-back box, [Adams Z195; Edit16 30423; Smith, Rara Arithmetica pp.425-426; Riccardi I I, 674 'rarissimo']; Tomash & Williams Z13], folio, Brescia, Vincenzo Sabbio, 1660.*

\*\*\* Zuchetta was a mathematician from Genoa. The preface lists some 98 arguments for the need of arithmetic in all classes of society. As well as general arithmetic it includes mercantile arithmetic, especially currency exchange.

£750 - 1,000