

Opera Mathematica, Tomus Secundus — complectens Geometriam Practicam, Arithmetica Practicam, et Algebram — Editorial footnotes (draft)

Christoph Clavius (1538–1612), S.J.. Drafted editorial footnotes for review before publication. Each note is keyed to its anchor in the **manuscript-grade complete edition** — the collated output that retains the per-batch/page scaffolding the anchors reference (produced by `ms`). The reading in the main text is **preserved as printed/transcribed** and is not altered by these notes. The note text below is a **draft** — review and edit before publication.

The notes are classified as follows:

- **Category B — source compositor error.** A printing, compositor, or scribal error in the source itself (a wrong letter or digit, a dropped or doubled word, a non-resolving citation). The likely intended reading is noted, but the main text preserves exactly what is printed.
- **Category C — author/source anomaly.** An anomaly originating with the author or the source rather than the typesetting (a factual or geographic slip, a misattribution, an internal inconsistency, or a deliberate but unusual feature). Recorded as written.

#	Anchor	Cat.	Item
1	batch_004 / p. 10, item 5 (right margin)	B	Margin gloss posits the whole sine as 100 where the body posits 1000
2	batch_007 / p. 19, conversion table (remainders 17, 61, 123, 124)	B	Four conversion-table entries break the minutes progression
3	batch_007 / p. 20, difference table (final row)	B	Final row of the difference table labelled 24 for 42
4	batch_008 / p. 18, Tabula Quadrantis, Part 13, row 14	B	Degrees printed 16 where the monotone column requires 10
5	batch_008 / p. 19, Tabula Quadrantis, Part 16, row 39	B	Seconds printed 32 in a column that steps in exact 7'30"
6	batch_012 / p. 29, Tabula Quadrantis, column 90, row 40	B	Column 90 closes at 99 0 0 instead of 90 0 0

#	Anchor	Cat.	Item
7	batch_012 / p. 29, Tabula Quadrantis, column 90, row 36	B	Degrees printed 86 where the progression requires 87
8	batch_012 / p. 30, Tabula Quadrantis, column 98, row 12	B	Degrees printed 79 where the progression requires 76
9	batches 007–012 / Tabula Quadrantis, row 1 of every column	C	Row 1 duplicates the whole- degree value that belongs at row 40
1 0	batch_012 / pp. 29–30, Tabula Quadrantis, high divisions	C	High-division columns terminate early and are zero-filled
1 1	batch_015 / p. 38, sine of angle HAM	B	Sine printed 62470 where the 7- figure system requires 6247000
1 2	batch_017 / p. 45; batch_021 / p. 63; batch_079 / p. 235; batch_123 / p. 369	B	Running headers naming the wrong book or chapter
1 3	batch_017 / p. 43; batch_039 / p. 115; batch_041 / p. 121; batch_046 / p. 137; batch_080 / p. 240; batch_114 / p. 340; batch_010 / pp. 28–30	B	Compositor typographic errors in headings and running titles
1 4	batch_019 / p. 56, marginal citation a	B	Exterior-angle argument cited to Euclid I.29 instead of I.32
1 5	batch_021 / p. 63, Problem XV, margin note d	C	Margin and body cite different scholia for the same step
1 6	batch_021 / p. 63, Problem XV, final proportion (part 2)	B	Result clause prints DN where the construction requires DM
1 7	batch_029 / p. 85, Scholium §1 worked example	B	AF printed with one zero too many (200000 for 20000)
1 8	batch_033 / p. 99 (fig-p99-2); batch_042 / p. 126 (circle diagram)	B	Woodcut point-letters set with reversed N sorts
1 9	batch_035 / p. 103, Problema XXXVII no. 3	B	Square of the side printed with five zeros instead of six
2 0	batch_036 / p. 108	B	Second tower printed CH where the construction requires GH
2 1	batch_037 / p. 110; batch_046 / pp. 137–138; batch_067 / p. 201;	B	Printed page-numbers misset at several points in the Geometria

#	Anchor	Cat.	Item
	batch_068 / p. 202; batch_076 / p. 228		Practica
2 2	batch_038 / p. 113, marginal citations	C	Euclid citations follow Clavius's own expanded Elements
2 3	batch_041 / p. 123, unit-area table (pentagon)	B	Pentagon denominator printed 11775706 against the side value 11755705
2 4	batch_041 / §4 worked example (decagon)	B	Decagon result printed with integer part 8 instead of 7
2 5	batch_042 / pp. 124–126, Propositio II	C	Clavius deliberately rennumbers Archimedes' propositions
2 6	batch_045 / p. 133	C	Whole sine given as 100000 where earlier chapters use 10000000
2 7	batch_047 / p. 141, §8 tetrahedron example	B	Semidiameter named twice with two different values
2 8	batch_051 / pp. 151–152, Cap. XII	B	Numbered sequence skips 3
2 9	batch_053 / p. 159	B	Figure name doubles H and omits G
3 0	batch_062 / PROP. 10, marginale b	B	Division of a line in a given ratio cited to Euclid VI.19
3 1	batch_064 / p. 192, Probl. 4 / Prop. 21	B	Three segments named after "both sides"
3 2	batch_071 / p. 212, PROBL. 12 worked example	B	Circumference computed from the remaining, not the whole, diameter
3 3	batch_090 / p. 270, division $1904639 \div 2978$	B	Superscript remainder printed 1607 against the galley's 1697
3 4	batch_111 / p. 331, index of the Insitio fractorum	B	Second-rule entry refers the reader to the first rule
3 5	batch_112 / p. 337, Algebra display title	C	Algebra carries its own 1612 imprint and a different printer
3 6	batch_115 / p. 345; batch_147 / Problem 94; batch_151 / Problem 134; batch_153 / Problem 154;	C	Additive Roman-numeral forms (IIII for IV) used throughout

#	Anchor	Cat.	Item
	batch_159 / Problem 34; batch_161 / Problem 14		
3 7	batch_136 / p. 408, Rule 3	B	Rule 3 directs subtraction from the greater name rather than from its half
3 8	batch_137 / p. 75 (Algebra), binomial and residual verification grids	B	Radical order-marks dropped or misplaced in the verification grids
3 9	batch_142 / pp. 425–426, Problems 47–48 (margin)	B	Marginal Roman numerals misset at Problem 47, throwing the series one behind
4 0	batch_144 / p. 430, Problem 61 (third method)	B	"The first four" printed where the mathematics requires the first three
4 1	batch_144 / p. 432, Scholium to Problem 64	B	Enumeration of results omits the third number and mislabels the fourth
4 2	batch_151 / p. 452, Problem 140 (margin)	B	Marginal Roman CLX (160) beside body number 140
4 3	batch_172 / p. 516, Index, chapter XXVII	B	Index page-reference 65 breaks the ascending sequence
4 4	Epitome Arithmeticae Practicae (nines-check counterexamples) and Algebra (numeri ficti; batch_145, Problem 72)	C	Deliberately impossible cases and false numbers are the author's own pedagogy

1. batch_004 / p. 10, item 5 (right margin) — *Category B* — *source compositor error*

The marginal gloss to item 5 prints "posito sinu toto 100"; the body of the same item expressly posits the whole sine as 1000, and the tangents it gives (854, 5671) are computed on that radix. The margin's "100" is a compositor slip (or a dropped fourth zero). Preserved as printed.

2. batch_007 / p. 19, conversion table (remainders 17, 61, 123, 124) — *Category B* — *source compositor error*

Four entries of the p. 19 conversion table disagree with an otherwise strictly regular progression: remainder 17 prints "17. 58" where the neighbouring values (16 = 7'30", 18 = 8'26") require 7'58" — a spurious leading "1"; remainder 61 prints "26. 36" where 60 = 28'7" and 62 = 29'4" require 28'36"; and remainders 123 and 124 print "58. 7" and "57. 39", which appear transposed against their neighbours (122 = 57'11", 125 = 58'36"). All four were re-read glyph-by-glyph at native resolution and are genuinely so printed. Preserved as printed.

3. batch_007 / p. 20, difference table (final row) — Category B — source compositor error

The source labels the last row of the p. 20 difference table "24"; its values, and the surrounding text (which treats the quadrants 38, 40, 42), show this to be a digit transposition for 42. Preserved as printed.

4. batch_008 / p. 18, Tabula Quadrantis, Part 13, row 14 — Category B — source compositor error

The source prints "16 21 34" here; the column's monotone run (row 13 = 10 15 28, row 15 = 10 27 39) requires degrees = 10, so the leading "16" is a compositor error for "10". Confirmed as printed at native resolution. Preserved as printed.

5. batch_008 / p. 19, Tabula Quadrantis, Part 16, row 39 — Category B — source compositor error

The source prints "15 52 32"; this column advances by an exact 7'30" (seconds strictly 0" or 30"), so the value should be "15 52 30". Either a compositor error or a worn sort. Preserved as printed.

6. batch_012 / p. 29, Tabula Quadrantis, column 90, row 40 — Category B — source compositor error

The source prints "99 0 0" at the foot of column 90; every other column closes at row 40 on its own whole-degree heading value, so this should read "90 0 0". A compositor error (99 for 90). Preserved as printed.

7. batch_012 / p. 29, Tabula Quadrantis, column 90, row 36 — Category B — source compositor error

The source prints "86 11 15", a value smaller than column 89 in the same row (86 13 7) and out of progression between row 35 (86 29 4) and row 37 (87 53 26). The reading should be "87 11 15"; the compositor set 86 for 87. Preserved as printed.

8. batch_012 / p. 30, Tabula Quadrantis, column 98, row 12 — Category B — source compositor error

The source prints "79 33 45", breaking the monotone progression (row 11 = 75 47 49, row 13 = 77 19 41); the value should be "76 33 45". A compositor error (79 for 76). Preserved as printed.

9. batches 007–012 / Tabula Quadrantis, row 1 of every column — Category C — author/source anomaly

Throughout the *Tabula Quadrantis* the first argument-row of every part-column repeats the whole-degree value proper to row 40, so that each column's genuinely monotone run begins at row 2. This is consistent across all leaves and all fourteen part-columns and was confirmed at native resolution; it is a structural feature of the printed table (most likely the compositor's way of heading each column with its terminal value), not a misprint in any single cell and not a transcription error. Preserved as printed.

10. batch_012 / pp. 29–30, Tabula Quadrantis, high divisions — Category C — author/source anomaly

Beginning with division 91 and throughout p. 30, the columns stop at successively earlier argument-rows as the tabulated value approaches 90°, and the remaining cells — from division 92 onward including row 1 — are filled with "0 0 0". The final leaf's argument column likewise runs 1–38 rather than 1–40. This is a feature of the source table, not an omission in the transcription.

11. batch_015 / p. 38, sine of angle HAM — Category B — source compositor error

The source prints "62470"; the whole sine used here is 10000000, and the stated proportion (204 368/409 : 10000000 :: 128 : x) requires approximately 6247000. The printed figure drops trailing zeros — a compositor short-set. Preserved as printed.

12. batch_017 / p. 45; batch_021 / p. 63; batch_079 / p. 235; batch_123 / p. 369 — Category B — source compositor error

Four running headers in this volume name a book or chapter other than the one the body is in. On pp. 45 and 63 the recto header reads "LIBER I." although the body is unambiguously Liber II (the display title *GEOMETRIAE PRACTICAE LIBER II.* opens on p. 43); on p. 235 the header reads "LIBER VII." although the book closes as Book VIII ("FINIS, LIBRI OCTAVI." follows on p. 236); and on p. 369 the

header reads "CAPVT XII." while the body is the worked examples of Caput XIV. These are compositor failures to advance the standing headline at a book or chapter boundary. Headers are reported verbatim and the body sequence is trusted throughout. (Distinguish these from the ordinary early-modern lag in which a header names the chapter running at the head of a leaf whose new chapter opens further down the page — e.g. pp. 339, 343, 413, 263 — which is normal practice and not an error.)

13. batch_017 / p. 43; batch_039 / p. 115; batch_041 / p. 121; batch_046 / p. 137; batch_080 / p. 240; batch_114 / p. 340; batch_010 / pp. 28–30 — Category B — source compositor error

A scatter of dropped or transposed letters in headings and running titles, all preserved as printed: "Astronmicum" for *Astronomicum* (p. 43 subtitle); the running header "GEOMTER. PRACT." for *GEOMETR.* (p. 115); "vel siuu toto" for *sinu* in a sides-table inner heading (p. 121, where the two parallel blocks read *sinu*); "Cylindorum" for *Cylindrorum* (p. 137, Cap. I heading); "habt" for *habet* in an index entry (p. 240); and "duidatur" for *diuidatur* (p. 340). Related: the marginal label of the *Tabula Quadrantis* reads "Numerus sive ordo Quadrantum" on p. 28 but "...Quadratorum" on pp. 29–30 — a compositor variant, not a change of table.

14. batch_019 / p. 56, marginal citation a — Category B — source compositor error

The source anchors the exterior-angle step to "a 29. prim." (*Elements* I.29), where the exterior-angle theorem is I.32 — the reference the neighbouring anchor "n 32. prim." on p. 55 gives for the same class of argument. A compositor's citation slip. Preserved as printed.

15. batch_021 / p. 63, Problem XV, margin note d — Category C — author/source anomaly

The marginal citation reads "schol. 4. sexti" (a scholium to *Elements* VI) while the running text of the same step cites "in scholio propos. 18. lib. 5" (the scholium to V.18). Both are transcribed verbatim. The divergence is in the source: Clavius's marginal apparatus was set from a different keying than the body reference, and one of the two book numbers has slipped.

16. batch_021 / p. 63, Problem XV, final proportion (part 2) — Category B — source compositor error

The source prints the distance in the result clause as "DN" ("efficietur distantia DN, cognita"), but the geometry — and the exactly parallel result of part 1, "distantia DM, vel CB" — requires DM. The reading DM is given in the text with a flag; the printed letter is a compositor's M/N substitution. Preserved as flagged.

17. batch_029 / p. 85, Scholium §1 worked example — *Category B* — *source compositor error*

The source prints "particularum 200000" for AF when aA is put at 1000; the stated proportion ($bc : ab = aA : AF$, i.e. $50 : 1000 :: 1000 : AF$) yields $AF = 20000$. The printed figure carries one extra zero. Preserved as printed.

18. batch_033 / p. 99 (fig-p99-2); batch_042 / p. 126 (circle diagram) — *Category B* — *source compositor error*

Several diagram point-labels are printed as a mirror-image "И" — a compositor's inverted N sort, not a distinct symbol. The reading N is adopted where the surrounding label-sequence fixes it, with the printed form noted at the figure.

19. batch_035 / p. 103, Problema XXXVII no. 3 — *Category B* — *source compositor error*

The source prints "quadratus numerus lateris, nimirum 100000"; the square of the side (1000^2) is 1000000, and the exactly parallel passage at Problema XXXVIII no. 3 so prints it. A compositor's dropped zero. Preserved as printed.

20. batch_036 / p. 108 — *Category B* — *source compositor error*

The source prints "SI turre essent AF, CH, æquales..."; the two towers throughout the problem are AF and GH (tops A and G), so the printed C is a compositor's substitution for G. GH is given in the reader text with the printed form flagged.

21. batch_037 / p. 110; batch_046 / pp. 137–138; batch_067 / p. 201; batch_068 / p. 202; batch_076 / p. 228 — *Category B* — *source compositor error*

The printed foliation of the *Geometria Practica* is erratic at five identified points, each confirmed against the running headers, the signatures and the continuous text: p. 110 (verso) repeats the "103" of the facing recto, so no 104 appears in the run; the leaves at pp. 137–138 print "132" twice and skip 131; the opening leaf of Liber VIII prints "174" immediately after "194"; the following verso prints "175" where 196 is required; and the second *Tabula Quadratorum & Cuborum* leaf prints "226" for 222. The body order and running headers are authoritative in every case; the printed numbers are preserved as they stand. (The foliation is likewise erratic after the *Algebra* boundary.)

22. batch_038 / p. 113, marginal citations — *Category C — author/source anomaly*

Two marginal references do not resolve against the standard *Elements*: "20. secundi" cites a twentieth proposition of Book II, which in the received text has only fourteen, and "12. quartidecimi" cites Book XIV, the Hypsiclean book. Both are references to Clavius's own edition of Euclid, which supplements Book II with additional propositions and includes Books XIV–XV. They are transcribed as printed and are not errors.

23. batch_041 / p. 123, unit-area table (pentagon) — *Category B — source compositor error*

The source prints the pentagon's area denominator as 11775706, whereas the pentagon *side* tabulated on p. 121 is 11755705 — different digit strings (...77...06 against ...55...05). Every other area-fraction denominator in the table equals its own polygon's side value, so 11755705 is the correct figure and the printed form is a compositor misprint. Both are preserved as printed.

24. batch_041 / §4 worked example (decagon) — *Category B — source compositor error*

The source prints the decagon result as "8 164068/10000000"; $12 \times (\text{decagon side } 6180339 / 10000000) = 7.4164\dots$, so the integer part is 7. The two printed fraction forms are mutually consistent ($164068/10000000 = 41017/2500000$), which localizes the slip to the integer. Preserved as printed.

25. batch_042 / pp. 124–126, Propositio II — *Category C — author/source anomaly*

Clavius labels this "PROPOSITIO II" while noting in the text that it is Archimedes' third proposition, and that his own following proposition 3 is what Archimedes makes his second. The renumbering is deliberate and declared, not a misprint; readers collating against Archimedes should expect the two-proposition swap.

26. batch_045 / p. 133 — *Category C — author/source anomaly*

The source here prints the whole sine as 100000 (five zeros), whereas the sine work from Cap. VII onwards uses 10000000. Either the compositor short-set the value or this appendix-like section adopts a local 100000 radix; the surrounding computations are internally consistent with the smaller radix. Preserved as printed.

27. batch_047 / p. 141, §8 tetrahedron example — Category B — source compositor error

The source reads "si semidiameter ponatur 6, erit altitudo BF 4, & semidiameter 3", making the semidiameter both 6 and 3. The geometry (altitude = $2/3$ of the sphere's diameter, BF = 4, semidiameter BG = 3, GF = 1) requires the first quantity to be the *diameter*. A source slip of *semidiameter* for *diameter*. Preserved as printed, with the intended sense flagged.

28. batch_051 / pp. 151–152, Cap. XII — Category B — source compositor error

The numbered clauses of Cap. XII run "... / 2. QVOD si... / ITEM superficies... / 4. DENIQVE...": the third clause is set unnumbered where "3." is expected. A dropped numeral in the source. Preserved as printed.

29. batch_053 / p. 159 — Category B — source compositor error

The source names the irregular figure "ABCDEFHHIKA", doubling H and omitting G, while the woodcut's vertices read A, B, C, D, E, F, G, H, I, K. The naming string should read ABCDEFGHIKA. A compositor's slip in the running letter-string. Preserved as printed.

30. batch_062 / PROP. 10, marginale b — Category B — source compositor error

The source cites "19. sexti" (*Elements* VI.19) for cutting the line GH at K in a given ratio; the proposition for that construction is VI.10 (VI.9 for the bisection-type case). A compositor's citation slip. Preserved as printed.

31. batch_064 / p. 192, Probl. 4 / Prop. 21 — Category B — source compositor error

The source reads "ambae DL, BM, simul aequales ambobus lateribus AB, BD, AC, simul" — three segments after *ambobus lateribus*, "both sides". The parallel earlier clause speaks of "half of the sides AB, AC", and the isoperimetric step requires $DL + BM = AB + AC$; the intruding "BD" (clearly inked on the leaf) is a compositor's stray repetition of the base segment. Preserved as printed, translated to the required sense with a flag.

32. batch_071 / p. 212, PROBL. 12 worked example — Category B — source compositor error

The example takes $7 : 22 :: \text{diameter} \approx 146 : \text{circumference} \approx 430$; but $146.9 \times 22/7 \approx 461.7$, whereas $136.9 \times 22/7 \approx 430.2$ — i.e. the printed 430 answers to the *remaining part* of the diameter, not the whole. The slip is the source's own and is

carried downstream: the final arc ($360^\circ : 430 :: 60^\circ 28' : \approx 72$) is computed from 430. Preserved as printed.

33. batch_090 / p. 270, division $1904639 \div 2978$ — Category B — source compositor error

The small superscript fraction over the quotient prints the numerator as 1607, while the galley's last residue and the running prose both give "ultimum residuum 1697"; the arithmetic confirms 1697 ($2978 \times 639 = 1902942$; $1904639 - 1902942 = 1697$). A compositor slip in the superscript. The reader-facing value is given as 1697.

34. batch_111 / p. 331, index of the *Insitio fractorum* — Category B — source compositor error

Under the *Secunda regula* group the source prints "Quo pacto plures minutiae, quam duae inserantur per primam regulam", exactly paralleling the first-rule entry above it; it should read *per secundam regulam*. A compositor's repetition. Preserved as printed.

35. batch_112 / p. 337, Algebra display title — Category C — author/source anomaly

The *Algebra* display title is dated M.DC.XII (1612) and names the printer as "excudebat Ioannes Volmari", at the expense of Antonius Hierat, whereas the tome's general title is dated 1611 and carries a different printer. This is a genuine feature of the volume: the *Opera Mathematica* was produced in parts across 1611–1612, and the *Algebra* was set last and separately. Preserved as printed.

36. batch_115 / p. 345; batch_147 / Problem 94; batch_151 / Problem 134; batch_153 / Problem 154; batch_159 / Problem 34; batch_161 / Problem 14 — Category C — author/source anomaly

The source regularly sets Roman numerals in the additive form: "CAPVT IIII." in a running header against "CAPVT IV." in the corresponding body heading, and marginal problem-numbers XCIIII, CXXXIIII, CLIIII, XXXIIII, XIIII beside the Arabic 94, 134, 154, 34, 14. These are the printer's conventions, not numbering errors, and all such numerals are transcribed verbatim. Note also that in the *Algebra* every problem carries both an inline Arabic number and a marginal Roman one; the two agree except where separately noted.

37. batch_136 / p. 408, Rule 3 — Category B — source compositor error

The source states "Et si eandem hanc summam ex maiori nomine detrahes". For the rule to agree with Rule 2 and with its own third worked example, the subtraction must be from *half* the greater name, and the quantity subtracted is the extracted root, not "the sum". A slip in the source's statement of the rule. Rendered literally with a note.

38. batch_137 / p. 75 (Algebra), binomial and residual verification grids — Category B — source compositor error

In the verification grids the census order-mark is intermittently dropped or displaced: the sixth binomial's total-sum line sets a bare " $\sqrt{448}$ " beside the parallel " $\sqrt{3352}$ ", its cross-term sum is set as "352" without an inked order-mark, and in some $\sqrt{380}$ grids the mark precedes rather than follows the radical stroke (" $3\sqrt{5}$ " for " $\sqrt{35}$ "). All are square roots; the variation is compositorial and semantically empty. Preserved as printed, normalized in the rendering.

39. batch_142 / pp. 425–426, Problems 47–48 (margin) — Category B — source compositor error

The marginal Roman for Problem 47 is set "XKVII", the K a compositor's misprint for L (XLVII); at Problem 48 the margin then reads XLVII (= 47), one behind the Arabic body number, apparently carried forward from the mis-set numeral on the preceding page. The marginal series returns to agreement with the body numbering by Problem 51. The Arabic body numbers are authoritative; the marginal forms are preserved as printed.

40. batch_144 / p. 430, Problem 61 (third method) — Category B — source compositor error

The source prints "& priores quatuor $\frac{1}{2}R + 10$ "; the quantity $\frac{1}{2}R + 10$ is the sum of the first *three* numbers, so *quatuor* stands for *tres*. A compositor slip. Preserved as printed, with the required sense flagged.

41. batch_144 / p. 432, Scholium to Problem 64 — Category B — source compositor error

The Scholium's enumeration runs "...Secundus ... 290/145. Tertius ... $30R - 18$... 270/145. Quintus ... $5 - 5R$...": no clause is given for the true third number ($112 - 168R = 112/145$), and the fourth ($30R - 18 = 270/145$) is labelled "Tertius". The closing list of whole numbers, "288. 290. 112. 270. 245", is itself correct and identifies all five. A compositor's skip in the derivation sentence. Preserved as printed.

42. batch_151 / p. 452, Problem 140 (margin) — *Category B* — *source compositor error*

The source prints the marginal Roman as "CLX" (160) where the Arabic body number is 140 and the sequence (139 → 140 → 141) confirms it; the intended form is CXL. A compositor's transposition. Preserved as printed; the body number is authoritative.

43. batch_172 / p. 516, Index, chapter XXVII — *Category B* — *source compositor error*

The index page-reference for chapter XXVII (*De Binomiis, atque Apotomis, Residuisue*) prints "65", which falls outside the monotone ascending run of its neighbours (XXVI = 66, XXVIII = 72); 68 is the likely intended figure. Preserved as printed.

44. Epitome Arithmeticae Practicae (nines-check counterexamples) and Algebra (numeri ficti; batch_145, Problem 72) — *Category C* — *author/source anomaly*

At several points the text presents computations that do not resolve — the counterexamples showing that casting out nines can pass a false product, the *numeri ficti* of the *Algebra*, and the impossibility paragraph (QVOD...) appended to Problem 72, which demonstrates that no two numbers answer the stated conditions. These are deliberate demonstrations, not compositor errors or defective transmission, and are translated as they stand.