

5.

Theorema.(Auct. *Gotth. Eisenstein*, Stud. phil. Berol.)

Invenit Vir Clarissimus *Gauss* aequalitatem inter duas expressiones abstrusiores hancce

$$1 + x + x^3 + x^6 + x^{10} + \text{etc.} = \frac{1-x^2}{1-x} \cdot \frac{1-x^4}{1-x^3} \cdot \frac{1-x^6}{1-x^5} \cdot \frac{1-x^8}{1-x^7} \text{ etc.}$$

Non minus memorabilis videatur ejusdem seriei evolutio sequens

$$1 + x + x^3 + x^6 + x^{10} + \text{etc.} = \frac{1}{1 - \frac{x}{1 - \frac{x^2 - x}{1 - \frac{x^3}{1 - \frac{x^4 - x^2}{1 - \frac{x^5}{1 - \frac{x^6 - x^3}{1 - \frac{x^7}{1 - \frac{x^8 - x^4}{1 - \text{etc.}}}}}}}}}}$$

vel haec

$$1 + \frac{1}{z} + \frac{1}{z^3} + \frac{1}{z^6} + \frac{1}{z^{10}} + \text{etc.} = \frac{1}{1 - \frac{1}{z - \frac{1 - z}{z^2 - \frac{1 - z^2}{z^3 - \frac{1}{z^3 - \frac{1 - z^3}{z^4 - \frac{1 - z^4}{z^5 - \frac{1 - z^5}{z^6 - \frac{1 - z^6}{z^7 - \frac{1 - z^7}{z^8 - \frac{1 - z^8}{z^9 - \frac{1 - z^9}{z^{10} - \text{etc.}}}}}}}}}}}}}}$$

quarum altera ad valores ipsius x , qui sint minores quam 1, altera ad valores ipsius z , qui sint majores quam 1, restringi debet. Leges harum formularum sunt obviae. — Adjicere liceat formulam generaliore:

$$\frac{(1-x)(1-px)(1-p^2x) \dots \text{in inf.}}{(1-y)(1-py)(1-p^2y) \dots \text{in inf.}} = \frac{1}{1 + \frac{x-y}{1-p + \frac{py-x}{1+p + \frac{p^2x-py}{1-p^3 + \frac{p^3y-px}{1+p^2 + \frac{p^4x-p^2y}{1-p^5 + \text{etc.}}}}}}}}$$

Quae formula valet conditionibus:

$$N(p) < 1, \quad N(y) < 1, \quad \text{sive etiam conditionibus his:} \\ N(p) > 1, \quad N(x) < N(p).$$

Fac simile einer Handschrift von Tycho de Brahe

Medallas von Cortices

Tycho Brahe
Jenskj A° 1592
Den 8 Juli
Oranienburg

