Arcus $s = AEB = 149°, 16', 27'', 0''' = AFC$;
unde refultat
Arcus $BC = 61°, 27', 6'', 0'''$,
ipfa vero
Chorda $AB = AC = 19285340$. Q. E. F.

536. His Problematis, quibus Arcus quifpiam quæritur dato Sinui vel Cofinui æqualis, adjungamus fequens, quo quidem idem negotium proponitur, attamen major difficultas occurrit.

PROBLEMA VI.

TAB. XXIX. Fig. 116. *In femicirculo* AEB *Arcum* AE *abfcindere, ita ut, ducto ejus Sinu* ED, *Arcus* AE *fit æqualis fummæ rectarum* AD + DE.

SOLUTIO.

Quoniam ftatim patet hunc Arcum quadrante effe majorem, quæramus ejus Complementum BE, & vocemus Arcum $BE = s$, ita ut fit Arcus $AE = 180° - s$, atque ob $AC = 1$, $CD = cof.s$, $DE = fin.s$, erit $180° - s = 1 + cof.s + fin.s$. At, eft $fin.s = 2 fin.\frac{1}{2}s.cof.\frac{1}{2}s$, & $1 + cof.s = 2 cof.\frac{1}{2}s.cof.\frac{1}{2}s$; unde fit $180° - s = 2 cof.\frac{1}{2}s (fin.\frac{1}{2}s + cof.\frac{1}{2}s)$. At, eft $cof.(45° - \frac{1}{2}s) = \frac{1}{\sqrt{2}}.cof.\frac{1}{2}s + \frac{1}{\sqrt{2}}.fin.\frac{1}{2}s$: ergo $fin.\frac{1}{2}s + cof.\frac{1}{2}s = \sqrt{2}.cof.(45° - \frac{1}{2}s)$: unde erit $180° - s = 2\sqrt{2}.cof.\frac{1}{2}s \times cof.(45° - \frac{1}{2}s)$. Hac facta reductione, faciamus fequentes pofitiones

$\frac{1}{2}s =$