134. Sit Arcus z infinite parvus, erit *ſin.* $z = z$ & *coſ.* $z = 1$: ſit autem n numerus infinite magnus, ut ſit Arcus nz finitæ magnitudinis, puta, $nz = v$; ob *ſin.* $z = z = \frac{v}{n}$ erit CAP. VIII.

$$\textit{coſ.}\ v = 1 - \frac{v^2}{1.2} + \frac{v^4}{1.2.3.4} - \frac{v^6}{1.2.3.4.5.6} + \text{&c.}, \text{ \&}$$

$$\textit{ſin.}\ v = v - \frac{v^3}{1.2.3} + \frac{v^5}{1.2.3.4.5} - \frac{v^7}{1.2.3.4.5.6.7} + \text{&c.}$$

Dato ergo Arcu v, ope harum Serierum ejus Sinus & Coſinus inveniri poterunt; quarum formularum uſus quo magis pateat, ponamus Arcum v eſſe ad quadrantem, ſeu 90°, ut m ad n, ſeu eſſe $v = \frac{m}{n} \cdot \frac{\pi}{2}$; Quia nunc valor ipſius π conſtat, ſi is ubique ſubſtituatur, prodibit

ſin. A. $\frac{m}{n}$ 90° =

$+ \frac{m}{n} \cdot$ 1, 57079632679489661923132169 16
$- \frac{m^3}{n^3} \cdot$ 0, 64596409750624625365575656 36
$+ \frac{m^5}{n^5} \cdot$ 0, 07969262624616704512050554 88
$- \frac{m^7}{n^7} \cdot$ 0, 00468175413531868810068546 32
$+ \frac{m^9}{n^9} \cdot$ 0, 00016044118478735982187266 05
$- \frac{m^{11}}{n^{11}} \cdot$ 0, 00000359884323521208534045 80
$+ \frac{m^{13}}{n^{13}} \cdot$ 0, 00000005692172921967926811 71
$- \frac{m^{15}}{n^{15}} \cdot$ 0, 00000000066880351098114672 24
$+ \frac{m^{17}}{n^{17}} \cdot$ 0, 00000000000606693573110619 50