LIB. I. Manifeſtum autem eſt, quo major numerus pro i ſumatur, eo magis Poteſtatem $(1+k\omega)^i$ unitatem eſſe ſuperaturam; atque ſtatuendo $i =$ numero infinito, valorem Poteſtatis $(1+k\omega)^i$ ad quemvis numerum unitate majorem aſcendere. Quod ſi ergo ponatur $(1+k\omega)^i = 1+x$, erit $l(1+x) = i\omega$, unde, cum ſit $i\omega$ numerus finitus, Logarithmus ſcilicet numeri $1+x$, perſpicuum eſt, i eſſe debere numerum infinite magnum, alioquin enim $i\omega$ valorem finitum habere non poſſet.

119. Cum autem poſitum ſit $(1+k\omega)^i = 1+x$, erit $1+k\omega = (1+x)^{\frac{1}{i}}$ & $k\omega = (1+x)^{\frac{1}{i}} - 1$, unde fit $i\omega = \frac{i}{k}((1+x)^{\frac{1}{i}} - 1)$. Quia vero eſt $i\omega = l(1+x)$, erit $l(1+x) = \frac{i}{k}(1+x)^{\frac{1}{i}} - \frac{i}{k}$, poſito i numero infinite magno. Eſt autem $(1+x)^{\frac{1}{i}} = 1 + \frac{1}{i}x - \frac{1(i-1)}{i.\ 2i}x^2 + \frac{1(i-1)(2i-1)}{i.\ 2i.\ 3i}x^3 - \frac{1(i-1)(2i-1)(3i-1)}{i.\ 2i.\ 3i.\ 4i}x^4 +$ &c. Ob i autem numerum infinitum, erit $\frac{i-1}{2i} = \frac{1}{2}$; $\frac{2i-1}{3i} = \frac{2}{3}$; $\frac{3i-1}{4i} = \frac{3}{4}$, &c.; hinc erit $i(1+x)^{\frac{1}{i}} = i + \frac{x}{1} - \frac{xx}{2} + \frac{x^3}{3} - \frac{x^4}{4} +$ &c., & conſequenter $l(1+x) = \frac{1}{k}(\frac{x}{1} - \frac{xx}{2} + \frac{x^3}{3} - \frac{x^4}{4} +$ &c.$)$, poſita baſi Logarithmica $= a$ ac denotante k numerum huic baſi convenientem, ut ſcilicet ſit $a = 1 + \frac{k}{1} + \frac{k^2}{1.2} + \frac{k^3}{1.2.3} +$ &c.

120. Cum igitur habeamus Seriem Logarithmo numeri $1+x$ æqualem, ejus ope ex data baſi a definire poterimus valorem numeri