

279. Si $n = 1$ erit $M = 1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \&c.$ CAP. XV.

$$= l\infty, \& N = \frac{\pi\pi}{6}; \text{ hincque erit } l.l\infty = \frac{1}{2} l \frac{\pi\pi}{6} =$$

$$+ 1 \left(\frac{1}{2} + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \frac{1}{11} + \&c. \right)$$

$$+ \frac{1}{3} \left(\frac{1}{2^3} + \frac{1}{3^3} + \frac{1}{5^3} + \frac{1}{7^3} + \frac{1}{11^3} + \&c. \right)$$

$$+ \frac{1}{5} \left(\frac{1}{2^5} + \frac{1}{3^5} + \frac{1}{5^5} + \frac{1}{7^5} + \frac{1}{11^5} + \&c. \right)$$

$$+ \frac{1}{7} \left(\frac{1}{2^7} + \frac{1}{3^7} + \frac{1}{5^7} + \frac{1}{7^7} + \frac{1}{11^7} + \&c. \right)$$

&c.

Verum hæ Series, præter primam, non solum summas habent finitas, sed etiam cunctæ simul sumtæ summam efficiunt finitam, eamque satis parvam: unde necesse est ut Seriei primæ $\frac{1}{2} + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \frac{1}{11} + \&c.$, summa sit infinite magna, quantitate scilicet satis parva deficiet a Logarithmo hyperbolico Seriei $1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6} + \&c.$

280. Sit $n = 2$; erit $M = \frac{\pi\pi}{6}$ & $N = \frac{\pi^4}{90}$: unde fit

$$2l\pi - l6 = 1 \left(\frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{5^2} + \frac{1}{7^2} + \frac{1}{11^2} + \&c. \right)$$

$$+ \frac{1}{2} \left(\frac{1}{2^4} + \frac{1}{3^4} + \frac{1}{5^4} + \frac{1}{7^4} + \frac{1}{11^4} + \&c. \right)$$

$$+ \frac{1}{2} \left(\frac{1}{2^6} + \frac{1}{3^6} + \frac{1}{5^6} + \frac{1}{7^6} + \frac{1}{11^6} + \&c. \right)$$

&c.