

$\propto \frac{n^4 - 6n^3 + 11nn - 6n}{24}$, erit utique $\frac{n^3 - 6nn + 11n - 6}{6}$, hoc est,
 $\int \frac{1}{6} n^3 = \frac{1}{24} n^4 - \frac{1}{4} n^3 + \frac{1}{6} n^2 - \frac{1}{4} n + \frac{1}{6}$, indeque $\int \frac{1}{6} n^3 \propto$
 $\frac{n^4 - 6n^3 + 11nn - 6n}{24} + \frac{1}{24} n^4 - \frac{1}{4} n^3 + \frac{1}{6} n^2 - \frac{1}{4} n + \frac{1}{6}$. Et quoniam per modo in-
 venta $\int nn \propto \frac{1}{3} n^3 + \frac{1}{2} nn + \frac{1}{6} n$; nec non $\int \frac{1}{6} n$ five $\frac{1}{6} \int n \propto \frac{1}{12} n^2 + \frac{1}{12} n$,
 &c. $\int 1 \propto n$; hinc factâ horum substitutione emerget $\int \frac{1}{6} n^3 \propto$
 $\frac{n^4 - 6n^3 + 11nn - 6n}{24} + \frac{1}{3} n^3 + \frac{1}{2} nn + \frac{1}{6} n - \frac{1}{12} nn - \frac{1}{12} n + n \propto$
 $\frac{1}{24} n^4 + \frac{1}{4} n^3 + \frac{1}{4} nn$, ejusque proin sextuplum $\int n^3$ (summa cubo-
 rum) $\propto \frac{1}{4} n^4 + \frac{1}{2} n^3 + \frac{1}{4} nn$. Atque sic porro ad altiores gradatim
 potestates pergere, levique negotio sequentem adornare latexculum
 licet:

Summa Potestatum.

$$\begin{aligned} \int n &\propto \frac{1}{2} nn + \frac{1}{6} n. \\ \int nn &\propto \frac{1}{3} n^3 + \frac{1}{2} nn + \frac{1}{6} n. \\ \int n^3 &\propto \frac{1}{4} n^4 + \frac{1}{2} n^3 + \frac{1}{4} nn. \\ \int n^4 &\propto \frac{1}{5} n^5 + \frac{1}{2} n^4 + \frac{1}{3} n^3 * - \frac{1}{30} n. \\ \int n^5 &\propto \frac{1}{6} n^6 + \frac{1}{2} n^5 + \frac{5}{12} n^4 * - \frac{1}{12} nn. \\ \int n^6 &\propto \frac{1}{7} n^7 + \frac{1}{2} n^6 + \frac{1}{2} n^5 * - \frac{1}{6} n^3 * + \frac{1}{42} n. \\ \int n^7 &\propto \frac{1}{8} n^8 + \frac{1}{2} n^7 + \frac{7}{12} n^6 * - \frac{7}{24} n^4 * + \frac{1}{12} nn. \\ \int n^8 &\propto \frac{1}{9} n^9 + \frac{1}{2} n^8 + \frac{2}{3} n^7 * - \frac{7}{15} n^5 * + \frac{2}{9} n^3 * - \frac{1}{30} n. \\ \int n^9 &\propto \frac{1}{10} n^{10} + \frac{1}{2} n^9 + \frac{1}{4} n^8 * - \frac{7}{10} n^6 * + \frac{1}{2} n^4 * - \frac{1}{12} nn. \\ \int n^{10} &\propto \frac{1}{11} n^{11} + \frac{1}{2} n^{10} + \frac{1}{4} n^9 * - 1 n^7 * + 1 n^5 * - \frac{1}{2} n^3 * + \frac{5}{66} n. \end{aligned}$$

Quin imò qui legem progressionis inibi attentius inspexerit, eundem
 etiam continuare poterit absq; his ratiociniorum ambagibus: Sumtâ
 enim c pro potestatis cujuslibet exponente, fit summa omnium n^c seu

$$\int n^c \propto \frac{1}{c+1} n^{c+1} + \frac{1}{2} n^c + \frac{c}{2} A n^{c-1} + \frac{c \cdot c-1 \cdot c-2}{2 \cdot 3 \cdot 4} B n^{c-3} +$$

$$\frac{c \cdot c-1 \cdot c-2 \cdot c-3 \cdot c-4}{2 \cdot 3 \cdot 4 \cdot 5 \cdot 6} C n^{c-5} + \frac{c \cdot c-1 \cdot c-2 \cdot c-3 \cdot c-4 \cdot c-5 \cdot c-6}{2 \cdot 3 \cdot 4 \cdot 5 \cdot 6 \cdot 7 \cdot 8} D n^{c-7} \dots$$

& ita deinceps, exponentem potestatis ipsius n con-
 tinuè minuendo binario, quousque perveniat ad n vel nn . Literæ
 capitales A, B, C, D &c. ordine denotant coëfficientes ultimo-
 rum terminorum pro $\int nn$, $\int n^4$, $\int n^6$, $\int n^8$ &c. nempe $A \propto \frac{1}{6}$, B

N

 $\propto -\frac{1}{12}$