

§. 18. Ex his ergo deriuantur summae sequentes:

$$1 + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \frac{1}{5^2} \text{ etc.} = \frac{p^2}{6} = P$$

$$1 + \frac{1}{2^4} + \frac{1}{3^4} + \frac{1}{4^4} + \frac{1}{5^4} \text{ etc.} = \frac{p^4}{90} = Q$$

$$1 + \frac{1}{2^6} + \frac{1}{3^6} + \frac{1}{4^6} + \frac{1}{5^6} \text{ etc.} = \frac{p^6}{945} = R$$

$$1 + \frac{1}{2^8} + \frac{1}{3^8} + \frac{1}{4^8} + \frac{1}{5^8} \text{ etc.} = \frac{p^8}{9450} = S$$

$$1 + \frac{1}{2^{10}} + \frac{1}{3^{10}} + \frac{1}{4^{10}} + \frac{1}{5^{10}} \text{ etc.} = \frac{p^{10}}{93555} = T$$

$$1 + \frac{1}{2^{12}} + \frac{1}{3^{12}} + \frac{1}{4^{12}} + \frac{1}{5^{12}} \text{ etc.} = \frac{691p^{12}}{6425 \cdot 93555} = V.$$

quae series ex data lege attamen multo labore ad altiores potestates produci possunt. Diuidendis autem singulis seriebus per praecedentes orientur sequentes aequationes: $p^2 = 6P = \frac{15Q}{P} = \frac{21R}{2Q} = \frac{10S}{R} = \frac{99T}{10S} = \frac{6825V}{691T}$ etc. quibus expressionibus singulis quadratum peripheriae cuius diameter est 1, aequatur.

§. 19. Cum autem harum serierum summae etiam si vero proxime facile exhiberi possent, tamen non multum adiumenti afferre queant ad peripheriam circuli vero proxime exprimendam propter radicem quadratam, quae extrahi deberet; ex prioribus seriebus eliciemus expressiones, quae ipsi peripheriae p sint aequales. Prohibet autem vt sequitur: