Unit 15, part 52
Aphorisms, advices, anecdotes, brain teasers, curious stories, epigrams, epigraphs, epitaphs, ideas, crazy-creative ideas, koans, memorabilia, mottos, poems, proverbs, quotations, riddles, sayings, slogans, scurrilities, besun, etc.
collected for encouragement and the advantage of my students and myself.

Wort-Fundstücke, Gehörtes, Gelesenes, Zugelaufenes, …

Linguistisches/mentales Wasserzeichen in einem Text
Wie kann man mit geringem Aufwand und einfachen Mitteln ein handelsübliches Taschenradio in einen Notrufsender umrüsten?
Glaskugelversteher
Forschungsabfall
Antibiotikaresistenz
Die Evolution der Primzahlsequenz aus der Sequenz der ungeraden Zahlen
Apnoetauchen im Meer der Zahlen

Organised accident??

****1** Facts

****1.1** Infinite series

$$\sum_{i=0}^{\infty}(2x)^i = 1+2x(1+2x(1+2x(1+2x(1+... \quad (1.1)$$

$$= \frac{1}{1-2x} \text{ for } |x| < \frac{1}{2} \quad (1.2)$$

$$\sum_{i=0}^{\infty}\binom{2i}{i}\left(\frac{x}{2}\right)^i =$$

$$1+\frac{1}{1}x(1+\frac{3}{2}x(1+\frac{5}{3}x(1+\frac{7}{4}x(1+\frac{9}{5}x(1+... \quad (2)$$

$$\left(\sum_{i=0}^{\infty}\binom{2i}{i}\left(\frac{x}{2}\right)^i\right)^2 = \sum_{i=0}^{\infty}(2x)^i$$

$$= \frac{1}{1-2x} \text{ for } |x| < \frac{1}{2} \quad (3)$$

****1.2** $x = 10^{-6}$ (4)

Equ. (1) →

$$\sum_{i=0}^{\infty}(2*10^{-6})^{i} =$$

1.000002000004000008000016 0...

$$= \frac{1}{0.999998} \qquad (5)$$

Equ. (2) $\rightarrow$

$$\sum_{i=0}^{\infty}\binom{2i}{i}\left(\frac{10^{-6}}{2}\right)^{i} =$$

1.000001000001500002500004375 0... (6)

****1.3** Decomposition of 999998 etc.

999998 = 2*31*127*127 =

(2*127)*(31*127) = 254*3937 (7)

****2** Trigger web article [1] $\Leftrightarrow$ ****1**

$0.3937*2.54^{\#)} = 0.999998$ (8.1)

$$\frac{0.3937}{2.54} = 0.155 \qquad (8.2)$$

$$\frac{1}{0.3937} = 2.54*\sum_{i=0}^{\infty}(2*10^{-6})^{i} \qquad (9.1)$$

$$\frac{1}{2.54} = 0.3937*\sum_{i=0}^{\infty}(2*10^{-6})^{i} \qquad (9.2)$$

$$\sqrt{\frac{2.54}{0.3937}} = 2.54 * \sum_{i=0}^{\infty} \binom{2i}{i} \left(\frac{10^{-6}}{2}\right)^{i} \qquad (10.1)$$

$$\sqrt{\frac{0.3937}{2.54}} = 0.3937 * \sum_{i=0}^{\infty} \binom{2i}{i} \left(\frac{10^{-6}}{2}\right)^{i} \qquad (10.2)$$

**3 Discussion

**3.1

Analyze and discuss our trigger web article [1] on the basis of **1 and **2 critically critically.

**3.2

Extend **1.2, **1.3, and **2 open to the top, discuss **sciengappl**?

**3.3

Lateral

From

$$f(x) = \sum_{i=0}^{\infty} \binom{2i}{i} \left(\frac{x}{2}\right)^{i} =$$

$$1 + \frac{1}{1} x(1 + \frac{3}{2} x(1 + \frac{5}{3} x(1 + \frac{7}{4} x(1 + \frac{9}{5} x(1 + ... \qquad (2)$$

to

$$g(x) = \sum_{i=0}^{\infty} \frac{(2x)^i}{\binom{2i}{i}} =$$

$$1 + \frac{1}{1}x(1 + \frac{2}{3}x(1 + \frac{3}{5}x(1 + \frac{4}{7}x(1 + \frac{5}{9}x(1 + \ldots \quad (11)$$

3.3.1

Graphs of f(x) and g(x)

3.3.2

Finite formula representations of f(x) and g(x)

3.3.3

Special values of f(x) and g(x)

References

[1] A. Klitzke.
http://www.hores.org/artikel.html?file=tl_files/hores/PDF/Der%20Zoll%20ist%20nicht%20von%20dieser%20Welt.pdf
[#)] 1inch = 2.54cm

To be continued.



Photo by Shen Li, CQU „The life is strong, patient and tenacious”

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