

Definition VIII (Definition+γ)

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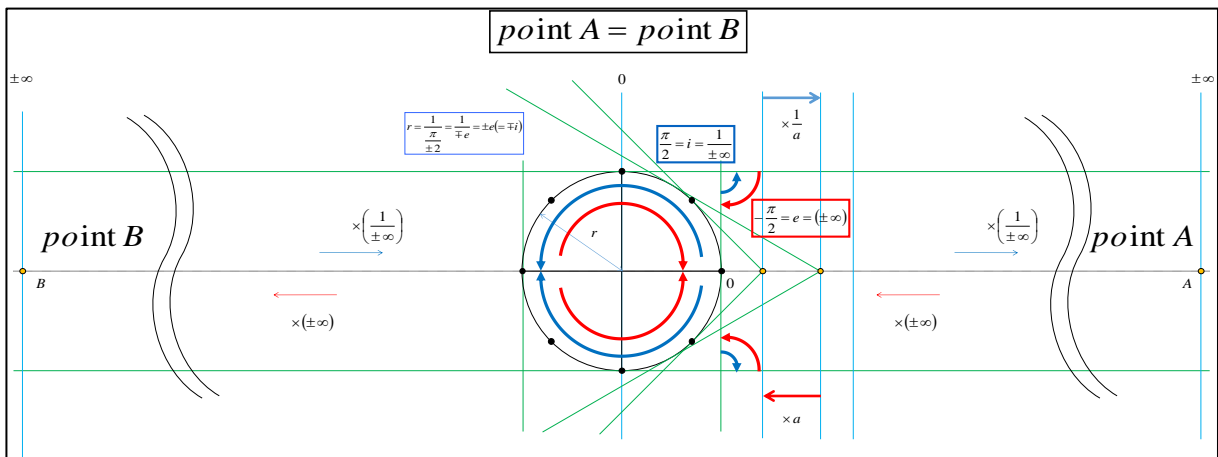
First, $\pm\infty$ is constant at any observation point (position). If a set of real numbers is R , then On the other hand, when $x (\in R)$ is taken on a number line, the absolute value X becomes larger toward $\pm\infty$ as the absolute value X is expanded. Similarly, as the size decreases, the absolute value X decreases toward 0. Furthermore, $x (-1)$ represents the reversal of the direction of the axis. Second, from the definition of napier number e .

$$R \times (\pm\infty) = \pm\infty, R + (\pm\infty) = \pm\infty, (-1) \times (\pm\infty) \neq \mp\infty$$

1. Introduction

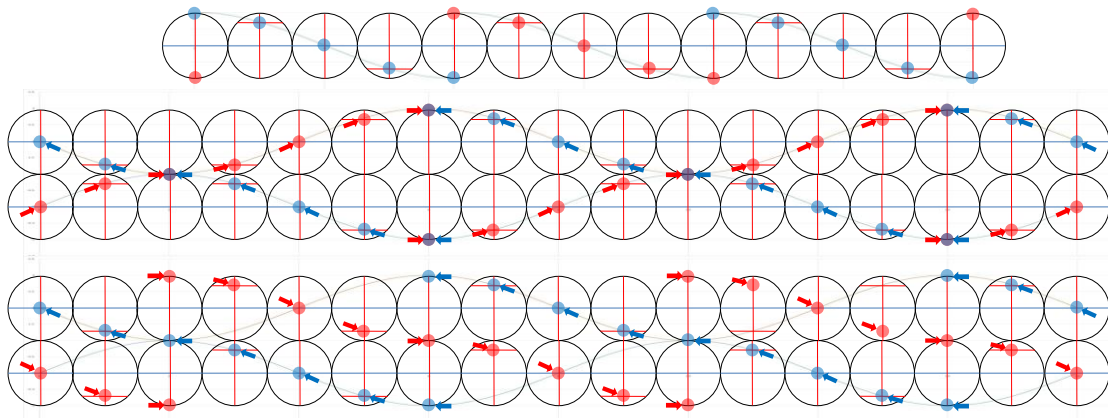
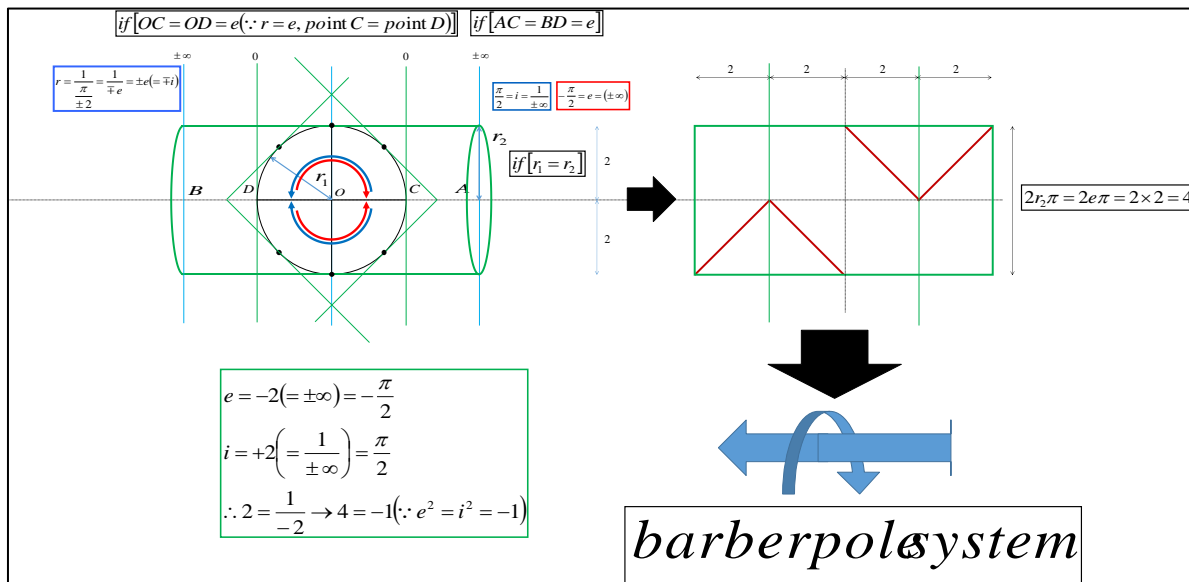
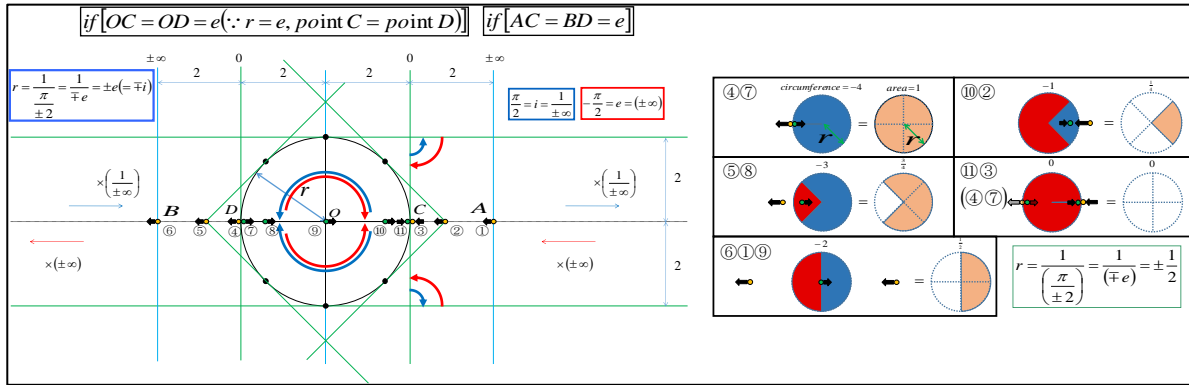
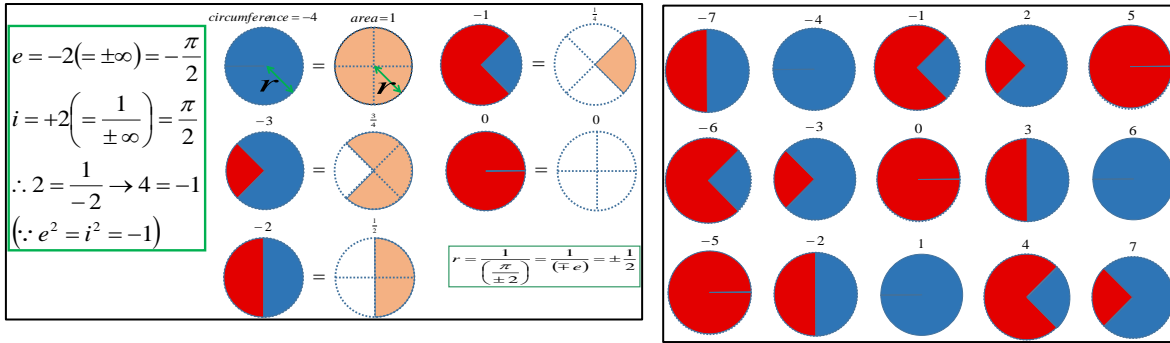
$$(-1) \times (\pm\infty) = \frac{1}{\pm\infty} \quad \longrightarrow \quad \boxed{\therefore (\pm\infty) \cdot i - 1 = 0}$$

$$\lim_{n \rightarrow \infty} \left(1 + \frac{1}{(\pm\infty)} \right)^{(\pm\infty)} = e \quad \longrightarrow \quad \boxed{\begin{array}{l} 1+i = e^i \left(\therefore (1+i)^{\frac{1}{i}} = e \right) \\ i = \log(1+i) \left(\therefore 1+i = e^i \right) \\ (1+i)^\pi = -1 \left(\therefore e^{i\pi} = -1 \right) \end{array}} \quad \boxed{\begin{array}{l} (1+i\pi)^{\frac{1}{i}} = e^\pi \left(\therefore (1+ir)^{\frac{1}{i}} = e^r \right) \\ i\pi = -2 \\ e = -i \left(\therefore e^{-2} = -1, \log i = \frac{1}{2}\pi i = -1 \right) \end{array}}$$



- ① $\log\left(-\frac{\pi}{2}\right) = \log e = 1$
 - ② $\log 1 = \log(-e^2) = 0$
 - ③ $\log 0 = \log\left(\frac{1}{\pm\infty}\right) = \log(e^{-1}) = \log(-e) = \log\left(\frac{\pi}{2}\right) = -1$
 - ④ $\log(-1) = i\pi = -2$
 - $\log(-1) = \log(e^{-2}) = -2 \log e = -2$
 - ① $\log(-2) = \log(\pm\infty) = \log e = 1$
- $\left. \begin{array}{l} \text{④} \\ \text{padding-left: 20px} \end{array} \right\} \boxed{-2 = \pm\infty}$

2. Equation



3. Consideration

$$R \times (\pm \infty) = \pm \infty, R + (\pm \infty) = \pm \infty, (-1) \times (\pm \infty) \neq \mp \infty \quad (-1) \times (\pm \infty) = \frac{1}{\pm \infty}$$

$$\text{Here, from} \quad R \times (\pm \infty) = \pm \infty$$

$$(\pm \infty)^2 \cdot i = \pm \infty$$

$$\therefore R = (\pm \infty) \cdot i = (-2) \cdot 2 = -4 = 1$$

$$\therefore a^m = a^{m \pm 5n} (\because R = 1)$$

4. Riemann hypothesis

$$\zeta(s) = 1 + \frac{1}{2^s} + \frac{1}{3^s} + \frac{1}{4^s} + \frac{1}{5^s} + \frac{1}{6^s} + \frac{1}{7^s} + \dots + \frac{1}{\infty^s}$$

$$\zeta(s) = 1 + \frac{1}{2^s} + \frac{1}{3^s} + \frac{1}{4^s} + \frac{1}{5^s} + \frac{1}{1^s} + \frac{1}{2^s} + \dots + \frac{1}{3^s}$$

$$\infty = 5m + 3 \quad \therefore m = \frac{\infty - 3}{5} = 0$$

$$\zeta(s) = \left(\frac{\infty - 3}{5} \right) \left(1 + \frac{1}{2^s} + \frac{1}{3^s} + \frac{1}{4^s} + \frac{1}{5^s} \right) + \frac{1}{1^s} + \frac{1}{2^s} + \frac{1}{3^s}$$

$$\zeta(s) = \frac{1}{1^s} + \frac{1}{2^s} + \frac{1}{3^s} = 1 + \frac{1}{2^s} + \frac{1}{3^s} = 0 \quad \therefore 2^s + 3^s = -1$$

$$2^s + 3^s = 27^s + 8^s = 3^{3s} + 2^{2s} = 3^{-2s} + 2^{-2s}$$

$$3^{-2s} + 2^{-2s} = \frac{1}{9^s} + \frac{1}{4^s} = \frac{1}{4^s} + \frac{1}{4^s} = \frac{2}{4^s} = -1$$

$$\therefore 4^s = -2$$

$$\therefore s = \frac{2i\pi n + i\pi + \log 2}{2 \log 2}, \quad n \in \mathbb{Z} \quad \therefore s = \frac{2i\pi n + i\pi}{2 \log 2} + \frac{1}{2}$$

5. Conclusion

By examining zero and ∞ and understanding their properties about numbers, I was able to refresh their traditional notions about numbers.

This is due to the efforts of our predecessors and also due to the efforts of modern scientists.

And most of all, I would like to thank my family for raising and supporting me.

Thank you very much.