

# Reconstruction proofs by definition

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By clearly defining the two concepts of  $\infty$  and 0, we can prove various theorems and unsolved conjectures from our new knowledge about numbers. And not only that, the interpretation of this definition can be extended to physics.

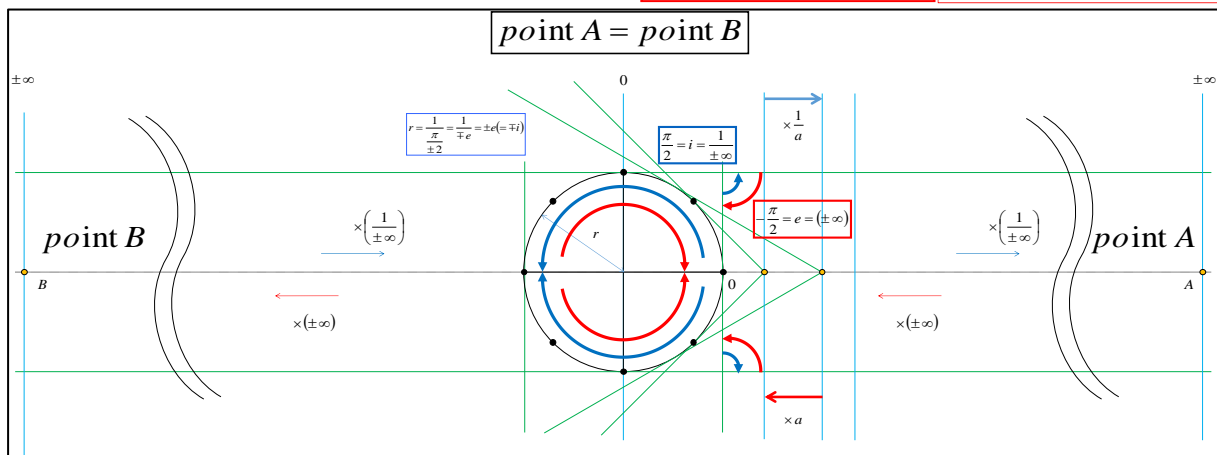
## 1. Definition

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  $e$ .

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

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

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



## 2. Introduction to logarithms

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  $\log(-1) = i\pi = -2$   
 $\log(-1) = \log(e^{-2}) = -2\log e = -2$  } -2 = ±∞

①  $\log(-2) = \log(\pm\infty) = \log e = 1$

$e = -2 (= \pm\infty) = -\frac{\pi}{2}$   
 $i = +2\left( = \frac{1}{\pm\infty} \right) = \frac{\pi}{2}$   
 $\therefore 2 = \frac{1}{-2} \rightarrow 4 = -1$   
 $(\because e^2 = i^2 = -1)$

circumference = -4

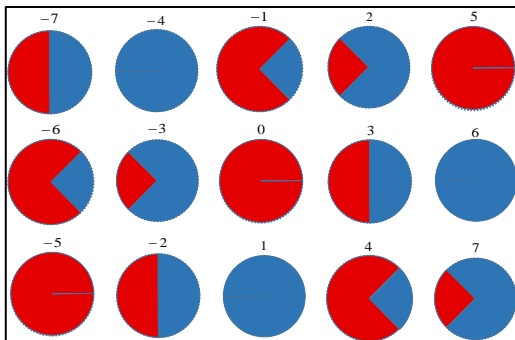
area = 1

-1

1/2

$r = \frac{1}{\left(\frac{\pi}{\pm 2}\right)} = \frac{1}{(\mp e)} = \pm \frac{1}{2}$

- $\ln(1) = \ln(-e^2) = \ln(-1) + 2 = i\pi + 2 = -2 + 2 = 0$
- $\ln(2) = \ln(-e) = \ln(-1) + 1 = i\pi + 1 = -2 + 1 = -1$
- $\ln(3) = \ln(-2) = \ln(e) = 1$
- $\ln(4) = \ln(e^2) = 2\ln(e) = 2$
- $\ln(5) = \ln(0) = \ln(1/\pm\infty) = \ln(1/-2) = \ln(e^{-1}) = -1$
- $\ln(6) = \ln(2) + \ln(3) = 0$
- $\ln(7) = \ln(2) = -1$
- $\ln(8) = \ln(4) + \ln(2) = 1$
- $\ln(9) = \ln(3) + \ln(3) = 2$
- $\ln(10) = \ln(5) = -1$
- $\ln(11) = \ln(1) = 0$
- $\ln(12) = \ln(2) = -1$
- $\ln(13) = \ln(3) = 1$
- $\ln(14) = \ln(4) = 2$
- $\ln(15) = \ln(5) = -1$
- $\ln(16) = \ln(1) = 0$
- ...
- $\ln(32) = \ln(2) = -1$
- ...



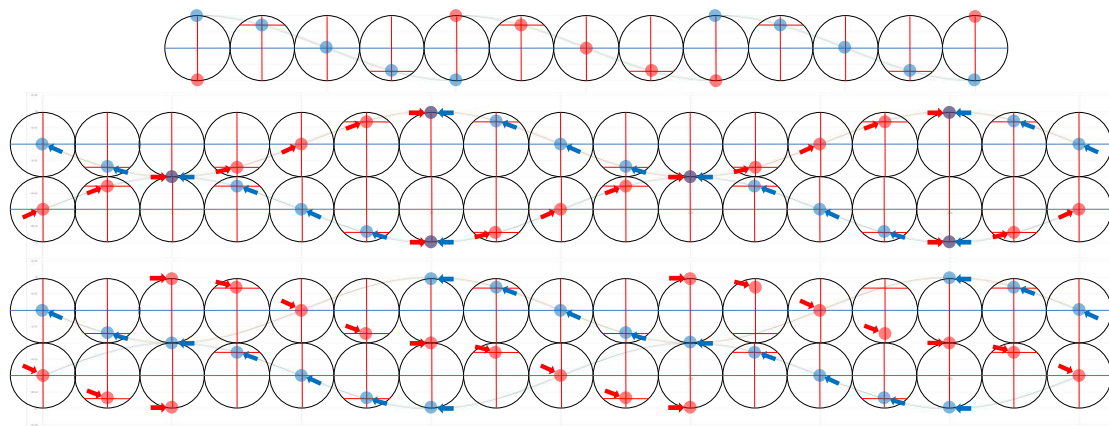
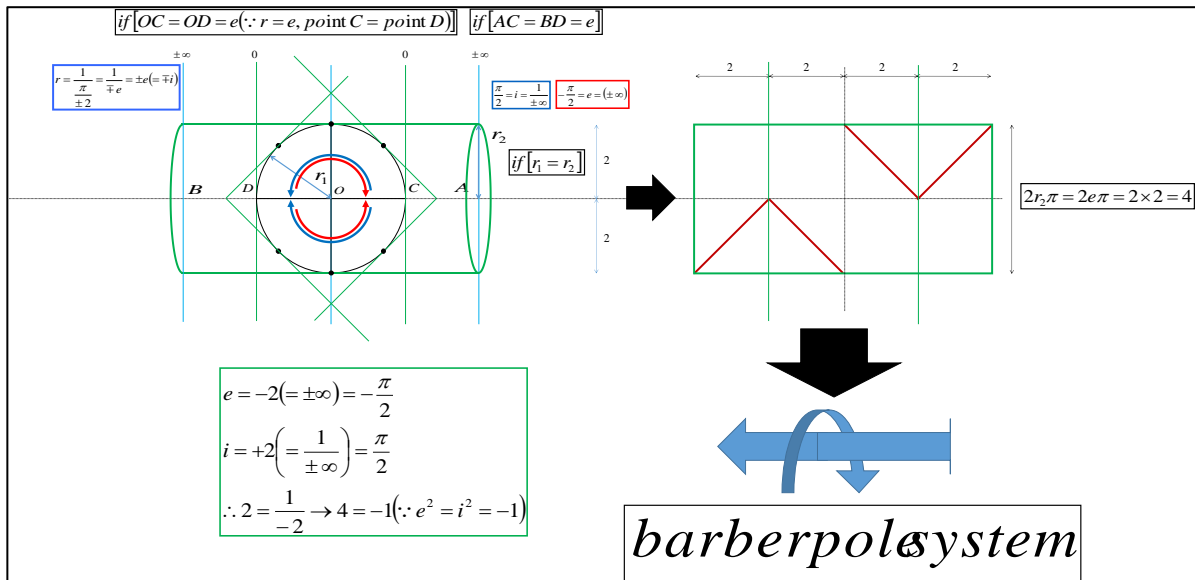
$\text{if}[OC = OD = e (\because r = e, \text{point } C = \text{point } D)]$ 
 $\text{if}[AC = BD = e]$

$r = \frac{1}{\frac{\pi}{\pm 2}} = \frac{1}{\mp e} = \pm e (= \mp i)$

$\frac{\pi}{2} = i = \frac{1}{\pm\infty}$      $\frac{\pi}{2} = e = (\pm\infty)$

<p>④⑦</p> <p><small>circumference = -4</small></p>	<p>⑩②</p> <p><small>-1</small></p>
<p>⑤⑧</p> <p><small>-3</small></p>	<p>⑪③</p> <p><small>0</small></p> <p>(④⑦)</p>
<p>⑥①⑨</p> <p><small>-2</small></p>	<p><small>1/2</small></p>

$r = \frac{1}{\left(\frac{\pi}{\pm 2}\right)} = \frac{1}{(\mp e)} = \pm \frac{1}{2}$



### 3. Consideration

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

Here, from  $R \times (\pm \infty) = \pm \infty$

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

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

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

#### 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. A expression for $\pi$

$$\sqrt{a} \sum_{x=1}^{\infty} \left( \frac{2}{\left(x - \frac{1}{2}\right)^2 + a} \right) = \pi$$

( $\because a > 0$ )

#### 6. Quaternion

$$i^2 = j^2 = k^2 = ijk = -1$$

【Proof】

$$\begin{array}{l} i = 2 \quad j = 3 \\ k = 4 \left( \because 4^{\frac{1}{2}} = 4^{\frac{3}{4}} = 64 = 4 \right) \end{array}$$



$$\begin{array}{l} i^2 = 4 = -1 \\ j^2 = 9 = 4 = -1 \\ k^2 = 64 = 4 = -1 \\ ijk = 2 \times 3 \times 4 = 24 = 4 = -1 \end{array}$$

## 7. Application to Physics

$$\begin{array}{l}
 \downarrow \\
 \boxed{
 \begin{array}{l}
 1 \rightarrow \quad \quad \quad [rad] \\
 2 \rightarrow \quad i \quad \quad [s] \\
 3 \rightarrow e(=\pm\infty) \quad [m] \\
 4 \rightarrow \quad \pi \quad \quad [kg]
 \end{array}
 }
 \end{array}$$

$$\boxed{\pi r^2 = 4 \times 3^2 = 36 = 1 \quad [rad]}$$

$$\boxed{F = G \frac{Mm}{R^2} \Rightarrow 3 = G \frac{4^2}{3^2} \Rightarrow G = \frac{27}{16} = 2 \quad [s]}$$

$$\begin{array}{l}
 \boxed{F = ma = 4 \times \frac{3}{2^2} = 3 \quad [m]} \\
 \boxed{h(\text{plank\_const}) = J \cdot s = E \times i = 4 \times 2 = 8 = 3 \quad [m]}
 \end{array}$$

$$\begin{array}{l}
 \boxed{E = F \times e(=3) = 3 \times 3 = mc^2 = \pi \times \left(\frac{e}{i}\right)^2 = 4 \times \frac{9}{4} = 9 = 4 \quad [kg]} \\
 \boxed{\frac{4}{3} \pi r^3 = \frac{4}{3} \times 4 \times 3^3 = 4^2 \times 3^2 = 144 = 4 \quad [kg]}
 \end{array}$$

(i). Uncertainty Principle

$$\boxed{\Delta x \cdot \Delta p \geq \frac{\hbar}{2} = \frac{h}{4\pi}}$$

$$\boxed{\Delta E \cdot \Delta t \geq \frac{\hbar}{2} = \frac{h}{4\pi}}$$

**【proof】**

$$\begin{array}{l}
 \boxed{\Delta E = 4} \\
 \boxed{\Delta t = 2} \\
 \boxed{\frac{\hbar}{2} = \frac{h}{4\pi} = \frac{3}{4 \times 4} = \frac{3}{16} = \frac{3}{1} = 3} \\
 \boxed{\therefore \Delta E \cdot \Delta t = 4 \times 2 = 8 = 3 = \frac{\hbar}{2}}
 \end{array}$$

$$\begin{array}{l}
 \boxed{\Delta x = 3} \\
 \boxed{\Delta p = 4 \times \frac{3}{2} = 6 = 1} \\
 \boxed{\frac{\hbar}{2} = \frac{h}{4\pi} = \frac{3}{4 \times 4} = \frac{3}{16} = \frac{3}{1} = 3} \\
 \boxed{\therefore \Delta x \cdot \Delta p = 3 = \frac{\hbar}{2}}
 \end{array}$$

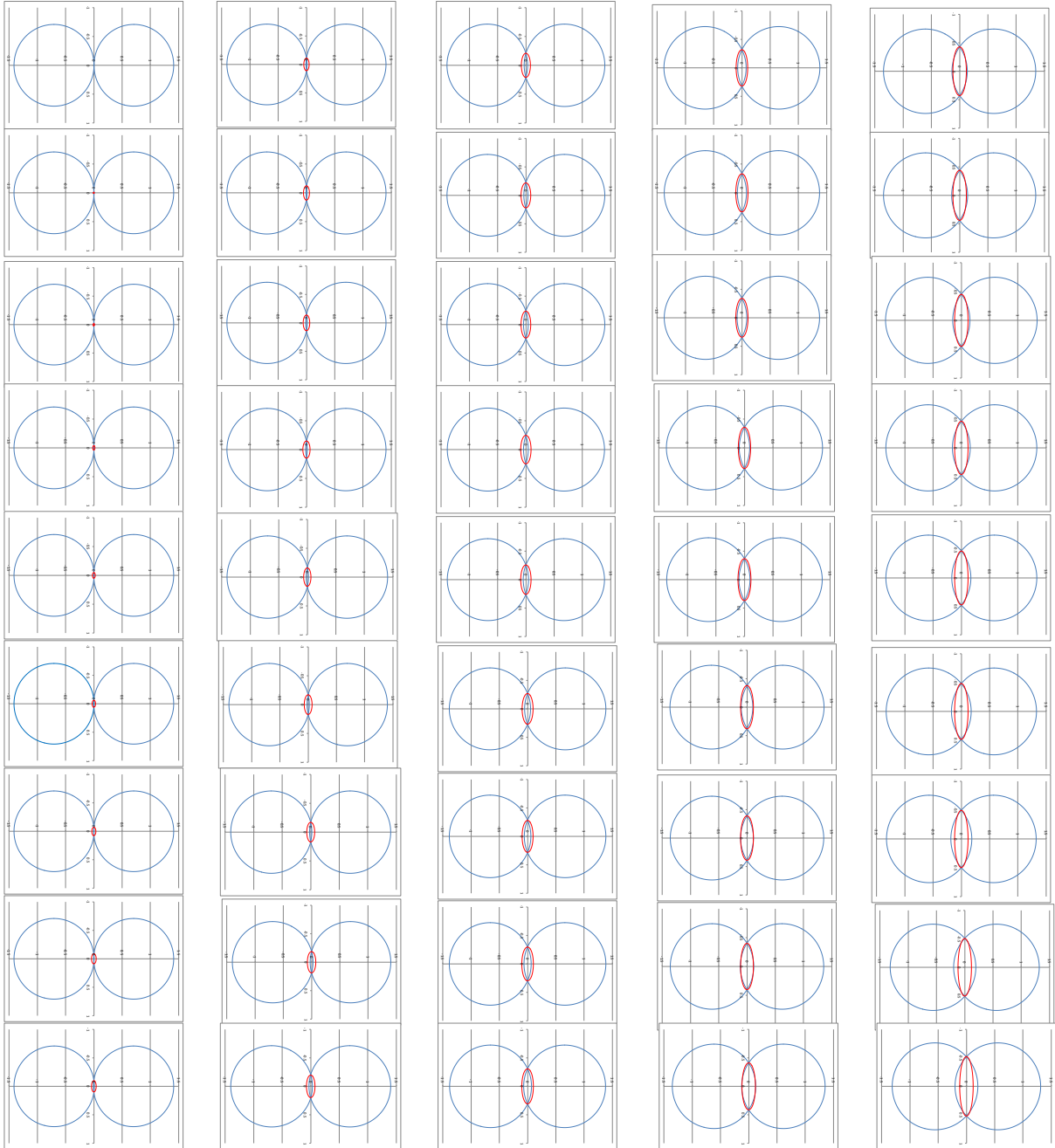
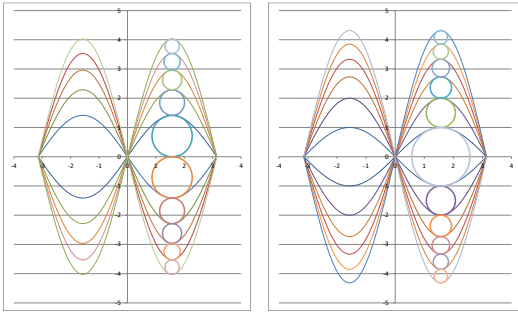
(ii). Equivalence Principle

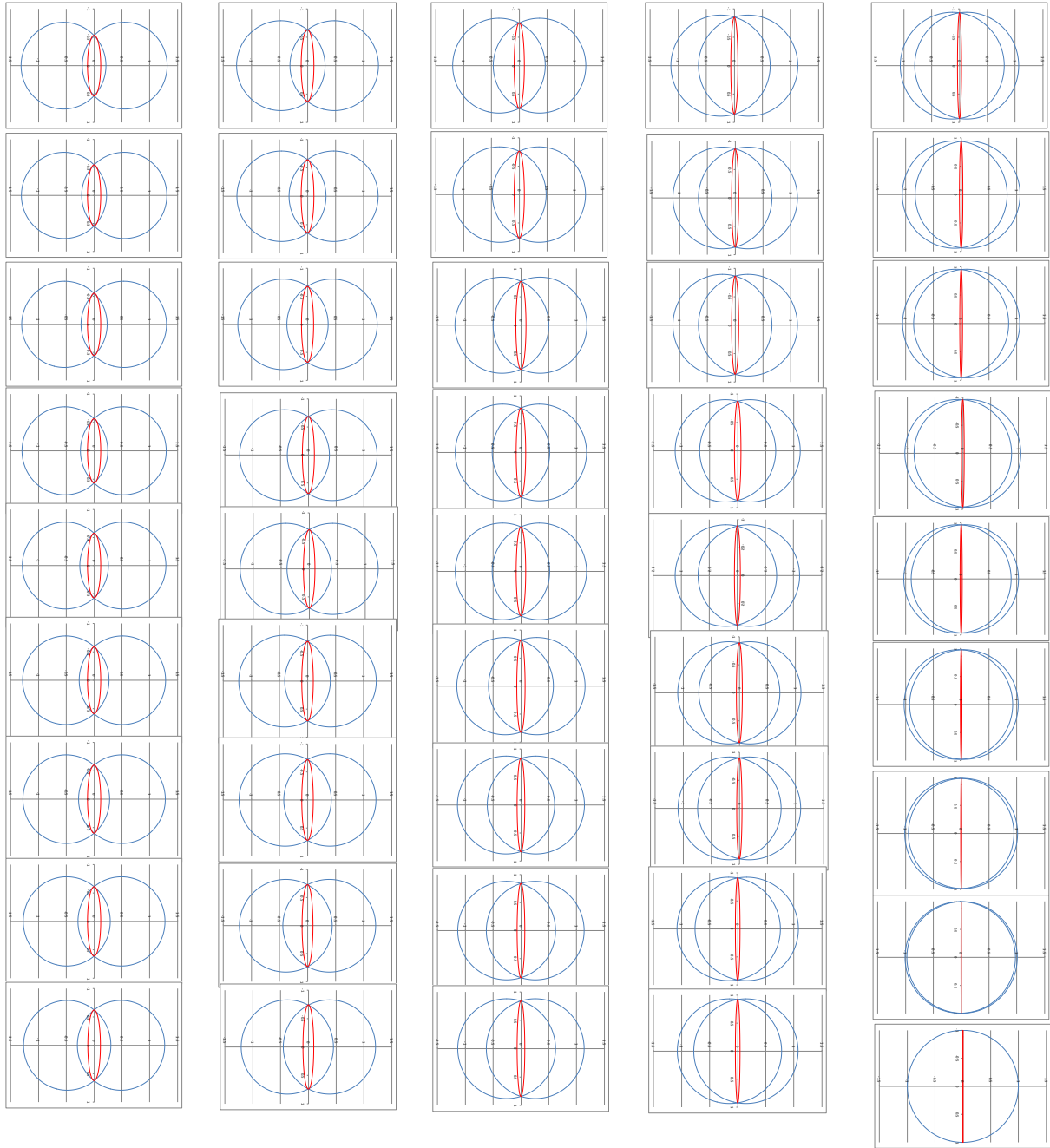
**【proof】**

$$\begin{array}{l}
 \boxed{g = G \cdot \frac{M}{R^2} = 2 \times \frac{4}{3^2} = 2} \\
 \boxed{a \left[ \frac{m}{s^2} \right] = \frac{3}{2^2} = \frac{3}{4} = \frac{8}{4} = 2} \\
 \boxed{\therefore g = a = 2}
 \end{array}$$

$$\begin{array}{l}
 \boxed{m^3 = 3^3 = 27 = 2} \\
 \boxed{s \times m^3 = 2 \times 2 = 4} \\
 \boxed{\frac{1}{s \cdot m^3} = \frac{1}{4} = \frac{16}{4} = 4} \\
 \boxed{\therefore s \times m^3 = \frac{1}{s \cdot m^3} = 4 = kg \left( = \frac{8\pi G}{c^4} \right)}
 \end{array}$$

## 8. Big Bang Model established in 2013





## 9. Conclusion

Now that "cosmic annihilation" has become a truth in my No. 26, "Big Bang Model Established in 2013," I believe that nuclear weapons are the only tool humanity has to prevent cosmic annihilation. On a global scale, nuclear weapons are useless, but if humanity gives them up, our extinction is already assured by cosmic annihilation. In short, humanity must recognize the inhumanity of nuclear weapons and continue to face them rationally and logically. I hope that my research so far will contribute to preventing the annihilation of the universe.