

- 57) The method of calculating potential energy in substances as can be seen in the formula below in [Math.1]. E as is defined here is the potential energy in a substance, T is time the substance passes under no gravity,  $m_1$  is mass (at its initial value),  $c_1$  is velocity of light (at its initial value), and  $T_k$  is time the substance has passed under no gravity.

[Math.1]

$$E = \sum_{K=1}^T m_1 c_1 (1 - T_K/T)^2 \quad (1 \leq K \leq T)$$

Further, the method of calculating potential energy in light as can be seen in the formula below in [Math.2]. E as is defined here is the potential energy in a substance, T is time the light passes under no gravity,  $m_1$  is mass (at its initial value),  $c_1$  is velocity of light (at its initial value), and  $T_k$  is time the light has passed under no gravity.

[Math.2]

$$E = \sum_{K=1}^T c_1 (1 - T_K/T) \quad (1 \leq K \leq T)$$

In addition, the formula below in [ Math.3 ] sets up as derived from [Math.1] and [Math.2]. E as is defined here is the potential energy in a substance or light,  $m_1$  is mass (at its initial value),  $c_1$  is velocity of light (at its initial value),  $T_k$  is time the substance or light has passed under no gravity, and T is time the substance or light passes under no gravity, namely, the existence of time itself.

[Math.3]

When

$$E = \sum_{K=1}^T m_1 c_1 (1 - T_K/T)^2 \quad (1 \leq K \leq T)$$

and

$$E = \sum_{K=1}^T c_1 (1 - T_K/T) \quad (1 \leq K \leq T)$$

and when  $m_1 = c_1 = 0$ , then  $E = 0$  and  $T = T_k = \infty$ .

Moreover, the method of creating reverse time for substances as can be seen in the formula below in [Math.4]. E as is defined here is the potential energy in a substance, T is time the light passes under no gravity,  $m_1$  is mass (at its initial value),  $c_1$  is velocity of light (at its initial value), and  $T_k$  is time the light has passed under no gravity.

[Math.4]

When

$$\sqrt{E / \sum_{K=1}^T m_1 c_1} - 1 > 0 \quad (1 \leq K \leq T), \quad T_k < 0$$

And lastly, the method of creating reverse time for light as can be seen in the formula below in [Math.5]. E as is defined here is the potential energy in a substance, T is time the light passes under no gravity,  $m_1$  is mass (at its initial value),  $c_1$  is velocity of light (at its initial value), and  $T_k$  is time the light has passed under no gravity.

[Math. 5]

When

$$E > \sum_{K=1}^T c_1 \quad (1 \leq K \leq T), \quad \text{then } T_k < 0$$