

# Supertasks

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# Outline

Today I'm telling you about supertask by example

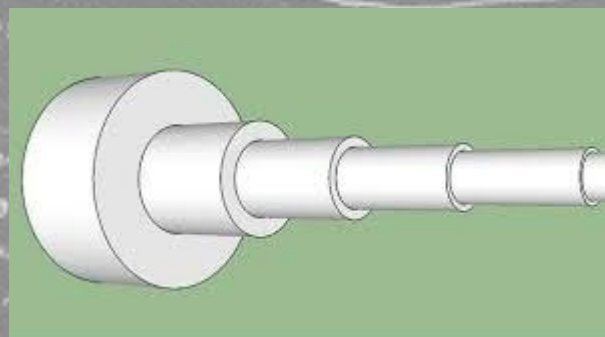
Gabriel's cake.

Let's cook!



# Introdacion.

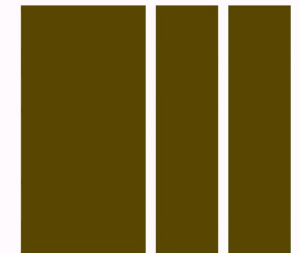
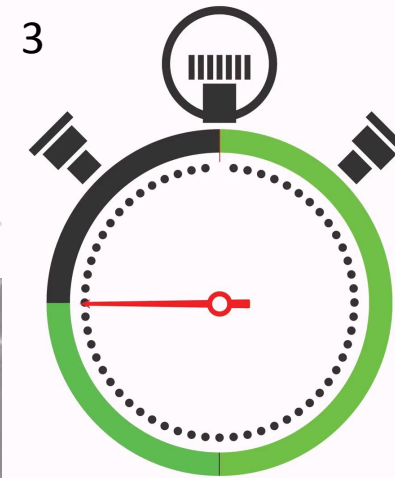
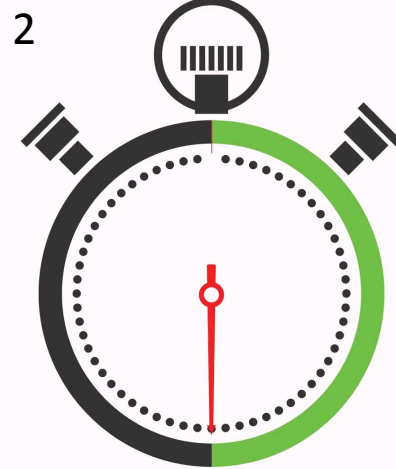
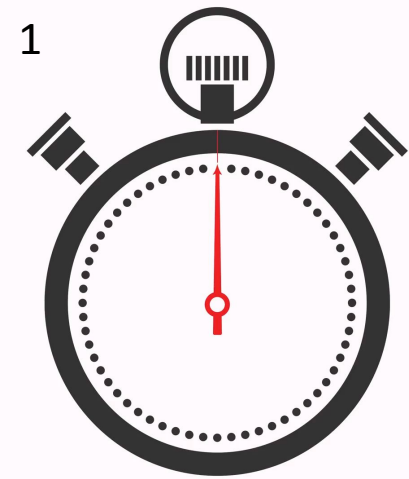
## The Paradox of Gabriel's Horn.



What is a Gabriel's cake?



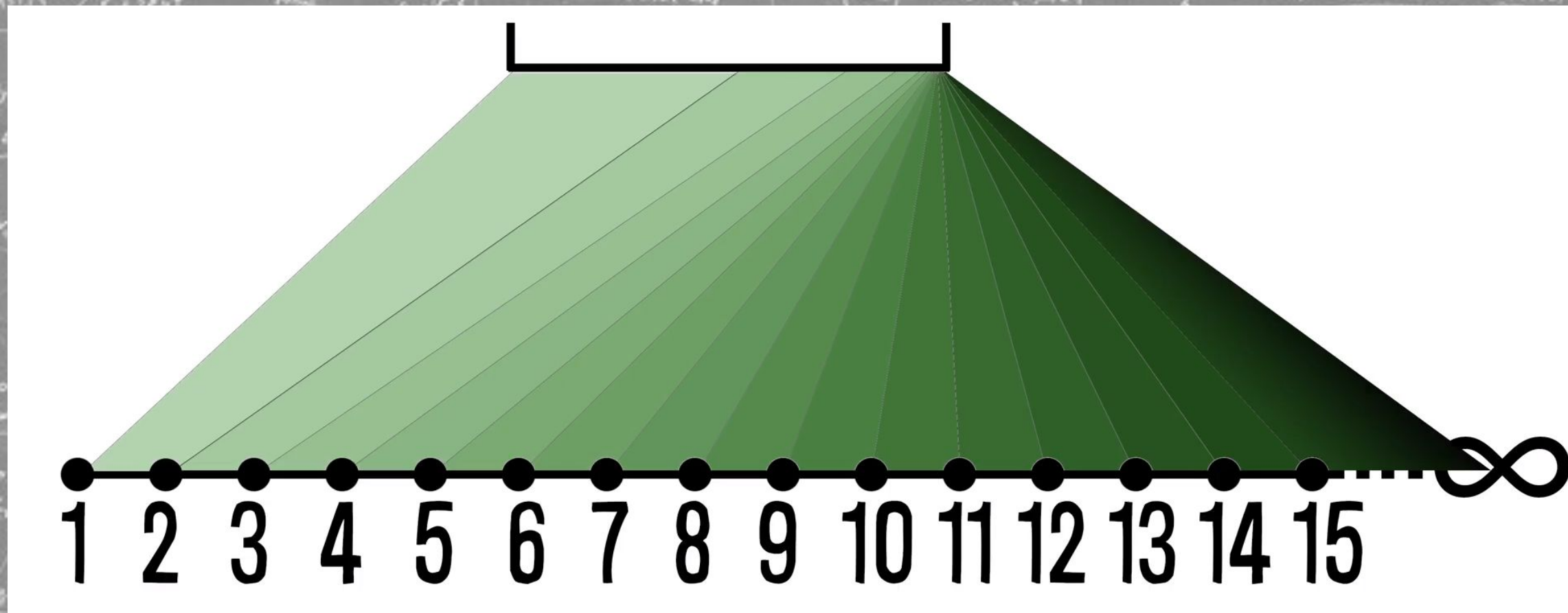
# Gabriel's cake in two minutes





# Supertask

Infinitely actions in the limited period of time is a **SUPERTASK**.



# Limitations of the real world

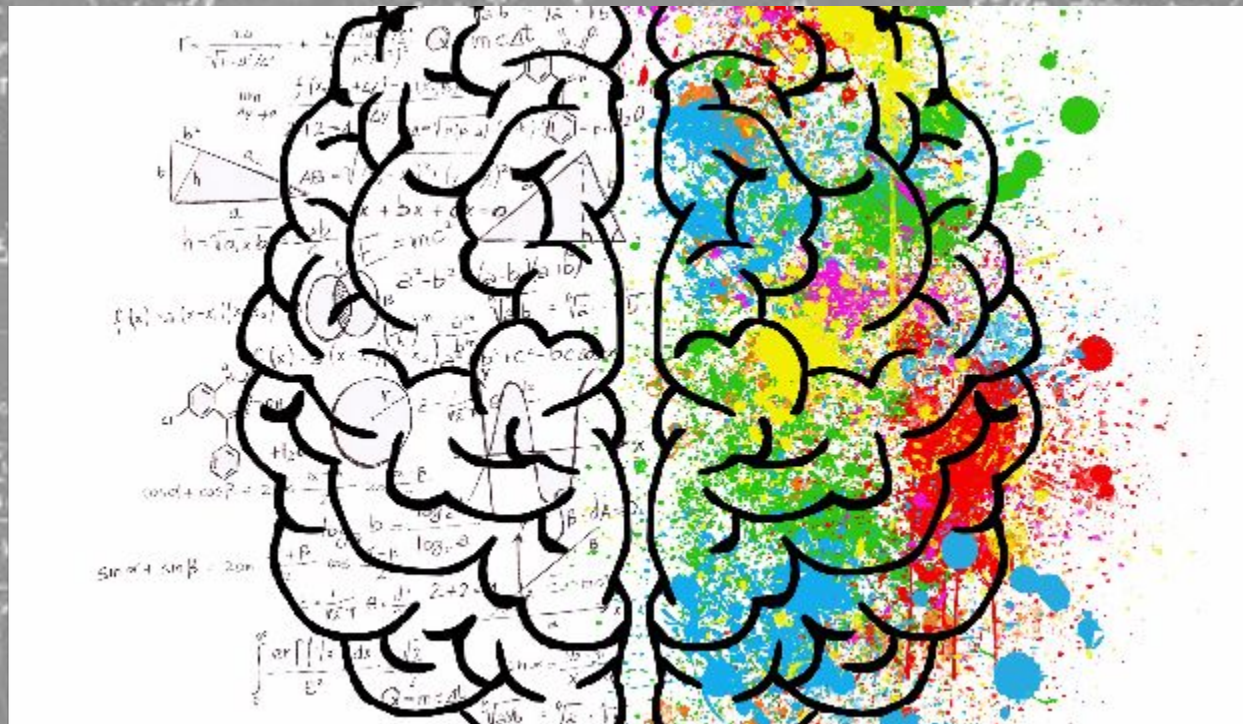
$$\text{Planck Time} = \sqrt{\frac{G\hbar}{c^5}} = 5.4 \times 10^{-44} \text{ s}$$

$$\text{Planck Length} = \sqrt{\frac{G\hbar}{c^3}} = 1.6 \times 10^{-35} \text{ m}$$



# Conclusion

Logically an infinite number of individual actions can be carried out over a finite period of time. But only logically!





# Thank for attention!