

## Unique in mathematics

**Abstract:** The article comprises equation even more beautiful than Euler's identity, which is considered the most beautiful math equation. The equation is even more beautiful, because from it is derived Euler's identity. Besides, there can be derived from it many other no less beautiful mathematical identities as Euler's.

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Euler's formula  $e^{i\pi} + 1 = 0$  is often called the most beautiful mathematical equation. But you can present even more beautiful equation, from which comes the Euler's formula - this is an equation of the form:  $X^{\frac{i \cdot \pi}{\ln(X)}} + 1 = 0$ .

In this more beautiful equation, X can be equal to e - then the result is Euler's formula.

But - **and this is the most important - this equation is true at any value of X**, and not only at X=e. If you insert a numerical value  $\delta = 4,66920160910299067185320383\dots$  (Feigenbaum's

constant), it will be true and beautiful equation  $\delta^{\frac{i \cdot \pi}{\ln(\delta)}} + 1 = 0$ . It could be called the Feigenbaum's formula.

By inserting the numerical value of  $\kappa = \lim_{n \rightarrow \infty} (a_1 \cdot a_2 \cdot \dots \cdot a_n)^{\frac{1}{n}} = 2,6854520\dots$

(Khinchin's constant) we will receive as a result the true and beautiful equation  $\kappa^{\frac{i \cdot \pi}{\ln(\kappa)}} + 1 = 0$  that you can call the Khinchin's equation etc.

There are, however, two exceptions - the equation  $X^{\frac{i \cdot \pi}{\ln(X)}} + 1 = 0$  is true with any value of X, with the exception of X=1, because  $\ln(1) = 0$ , and with the exception of X=0, because there is no such number, which would be equal to  $\ln(0)$ .

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