The most attractive mathematical formulas

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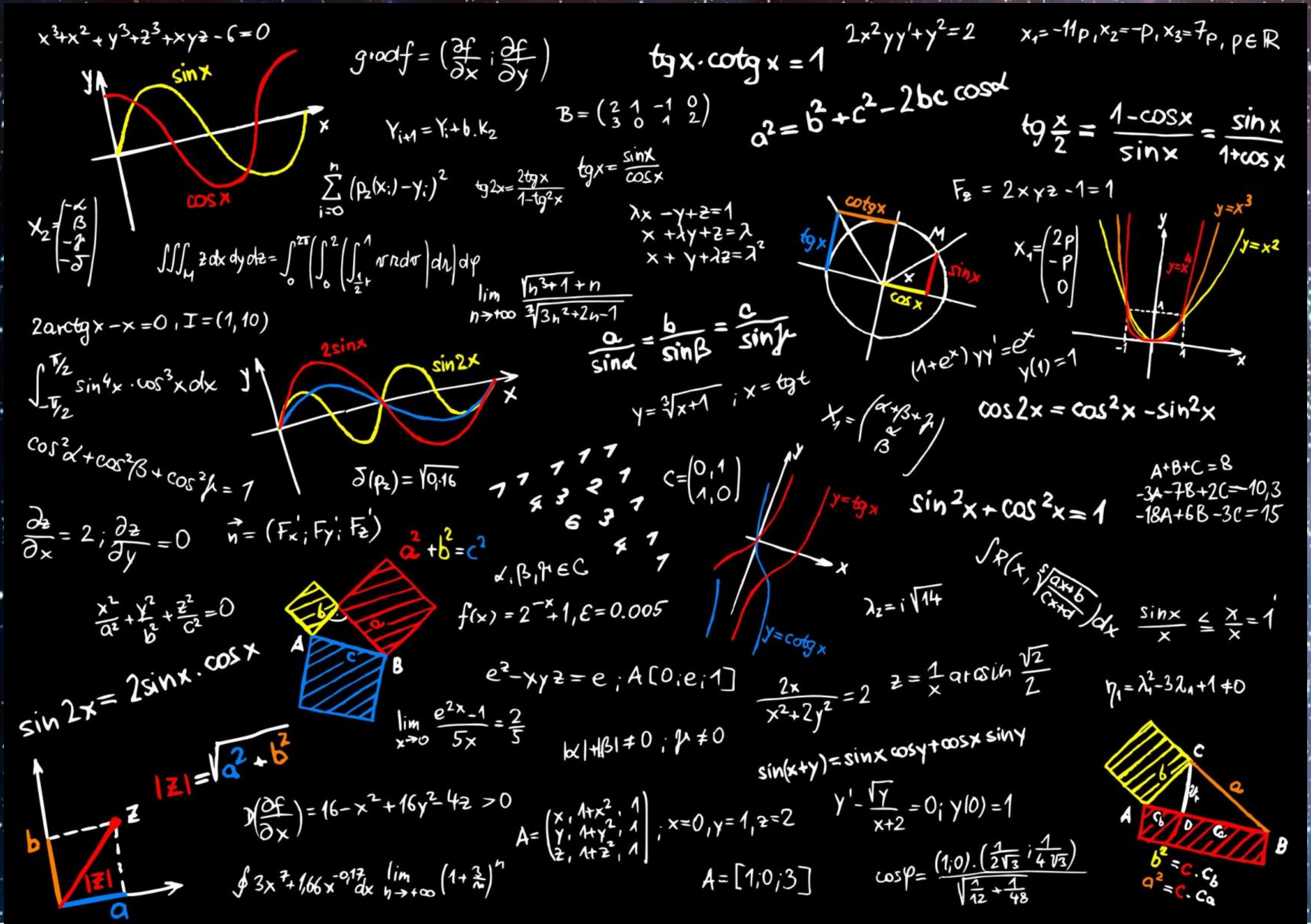
Neuroscientists from the UK conducted an experiment in which 15 mathematicians were asked to evaluate the beauty of mathematical formulas by offering them a list of 60 pieces.

As discovered by neuroscientists, viewing beautiful formulas, from the point of view of mathematicians, evokes a response in the prefrontal cortex of the brain responsible for complex cognitive functions and emotions.



1. Fermat's grand theorem

$$a^n + b^n = c^n, \qquad n > 2$$

2.Basic Trigonometric Identity

$$\cos^2\theta + sin^2\theta = 1$$

3.The Gauss-Bonnet formula

$$\int_M K\,dA + \int_{\partial M} k_g\,ds = 2\pi\chi(M)$$

4.Cantor's theorem for natural numbers

$$2^{|S|} > |S|$$

5.Euler's formula

$$e^{ix} = \cos x + i \sin x$$

6.Euler's identity

$$1 + e^{i\pi} = 0$$