



# Science and Scientists

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# Math

Mathematics surrounds us everywhere.

Thanks to her, we solve many issues in everyday life.

Few people thought that mathematics has surrounded us from the first days of life.

Any child even who has not studied arithmetic has come across numbers.

He knows his weight, height, he also knows his age

The image shows a green chalkboard with various mathematical formulas and graphs written on it. The formulas include:

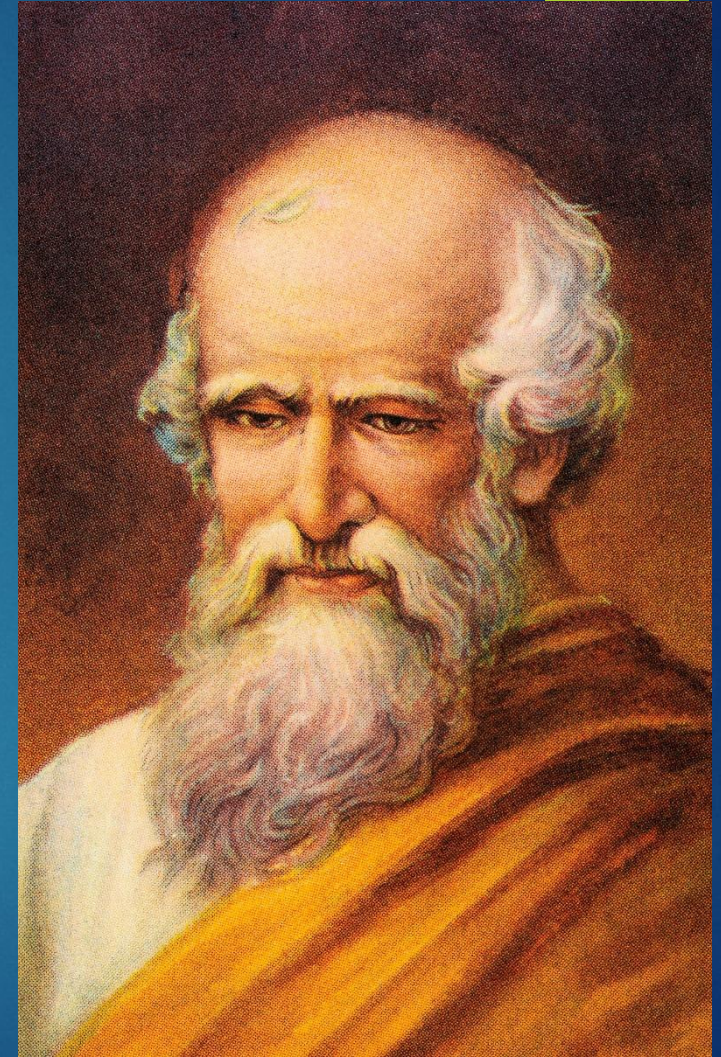
- $y = \frac{\Delta x}{\Delta z}$
- $(x-y^2)$
- $\phi = \sqrt{\frac{\sum (x-m)^2}{n-1}}$
- $\int (x \pm a^4)$
- $\lim_{x \rightarrow 1} \frac{\cot x - 2}{211 \times 3}$
- $P = r^2 \pi$
- $\ln = \sqrt{a \times b}$
- $4x = 8 - 3y^2$
- $e = 2,79$
- $B \sum_{i=1}^{n-1}$
- $y = 2x^2 + 3x$
- $P = \sum_{i=0}^{\infty} x_i^a$
- $\frac{A-C}{C}$
- $\sin$  (on a graph)
- $\tan(2a) = \frac{2 \tan(a)}{1 - \tan^2(a)}$
- $15 \Delta t = T - \frac{3a}{x}$
- $(x+y)^2 = \left(\frac{y}{2}\right)^2 = x^2 + 2ax + a^2$
- $\frac{1}{1 + \sqrt{x^2}} + C$

There are also two graphs: one showing a sine wave and another showing a curve passing through the point (1,1) on a coordinate system.



# Scientist

- ▶ Archimedes is an ancient Greek scientist and engineer.
- ▶ Born and spent most of his life in the city of Syracuse, Sicily.
- ▶ He made many discoveries in the field of geometry, anticipated many ideas of mathematical analysis.
- ▶ He laid the foundations of mechanics, hydrostatics, was the author of a number of important inventions.





# Russian scientist

- ▶ S.A Lebedev is called "the father of computer technology" in the USSR.
- ▶ Successes in the field of atomic energy and space exploration in the most important areas of scientific and technological progress are directly related to the use of high-performance computers and systems developed under the leadership of S.A. Lebedev.



# Physics

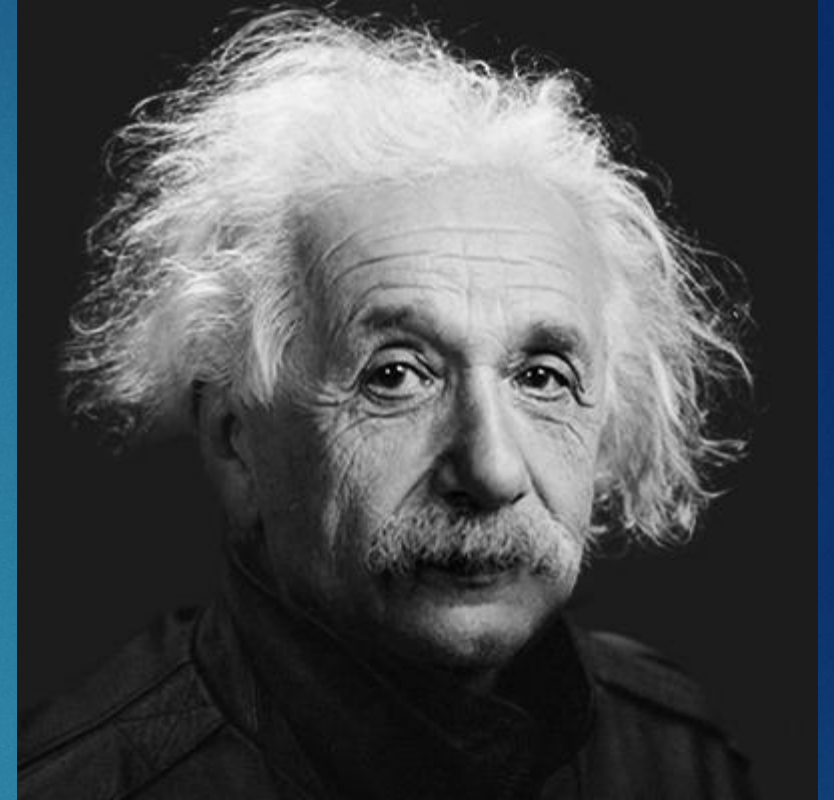
- ▶ Physics is the field of natural science: the science of the most general laws of nature, of matter, its structure, movement and the rules of transformation.
- ▶ The concepts of physics and its laws are the basis of all natural science.
- ▶ It is an accurate science.

$$\begin{aligned}
 & \Delta t = \frac{\Delta t'}{\sqrt{1 - \frac{v^2}{c^2}}} \quad 4\pi r^2 \quad X_L = \frac{U_m}{I_m} = \omega L = 2\pi f L \quad F_m = \frac{m_1 m_2}{2\pi d} \\
 & U_{ef} = \frac{U_m}{\sqrt{2}} \quad E = h\nu \quad U = \frac{W_{AB}}{q} = \frac{|E_{PA} - E_{PB}|}{q} = \frac{|V_A - V_B|}{q} \quad T = \frac{4n_1 n_2}{(n_2 + n_1)^2} \quad F_g = \frac{m_1 m_2}{r^2} \\
 & \vec{B} = \mu_0 \frac{NI}{2\pi r} \quad v = \frac{nh}{2\pi m_e r} \quad \Phi_E = \frac{E}{\epsilon_0} \cdot \frac{q}{\epsilon_0} \cdot \frac{1}{r} \quad T = \frac{4n_1 n_2}{(n_2 + n_1)^2} \quad g = \frac{c}{f} \quad k_m = \frac{c}{T} \quad k = \pm \sqrt{\frac{2m}{\hbar^2} (E - V_0)} \\
 & K = \frac{p^2}{2m} \quad m_0 = \frac{M_m}{N_A} = \frac{M_r \cdot 10^{-3}}{N_A} \quad m = N \cdot m_0 = \frac{Q}{v_e} \cdot \frac{M_m}{N_A} \quad E = \frac{E_c}{q} \int \sin(\omega t + \phi) dy \\
 & \lambda = \frac{h}{p} \quad \lambda_t = \lambda_0 (1 + d \Delta t) \quad I = \frac{U_e}{R + R_i} \quad \sin \alpha = \frac{v_1}{v_2} = \frac{w_2}{w_1} \quad v = \frac{1}{\sqrt{\epsilon_r \mu_r}} = \frac{c}{\sqrt{\epsilon_r \mu_r}} \\
 & \sqrt{2eU_m} \quad R = \rho \frac{L}{S} \quad E = mc^2 \quad \frac{\sin \alpha}{\sin \beta} = \frac{v_1}{v_2} = \frac{w_2}{w_1} \quad v = \frac{1}{\sqrt{\epsilon_r \mu_r}} = \frac{c}{\sqrt{\epsilon_r \mu_r}} \\
 & f_0 = \frac{1}{2\pi} \sqrt{\frac{g}{L}} \quad \psi(x) = \sqrt{\frac{2}{L}} \sin \frac{n\pi x}{L} \quad E = \frac{1}{2} \hbar \omega \quad \beta = \frac{\Delta I_c}{\Delta I_B} \quad \phi_e = \frac{\Delta E}{\Delta t} \quad \frac{w_1}{x} + \frac{w_2}{x'} = \frac{w_2 - w_1}{r} \\
 & \oint \vec{B} d\vec{l} = \mu_0 \iint \vec{J} dS \quad \vec{S} = \frac{1}{\mu_0} (\vec{E} \times \vec{B}) \quad E_k = \frac{h^2}{8mL^2} \quad \oint \vec{D} d\vec{S} = Q \\
 & C(s) \quad v_L = \sqrt{\frac{3kT}{m_0}} = \sqrt{\frac{3kT N_A}{M_m}} = \sqrt{\frac{3R_m T}{M_r \cdot 10^{-3}}} \quad E = \hbar k^2 \quad 1 \text{ pc} = \frac{1 \text{ AU}}{2m} \quad r = \frac{U}{I} \quad F_v = \frac{F_n}{\rho} \\
 & \lambda = \frac{h}{p} \quad F_h = \frac{1}{2} \rho g \quad M_0 = \frac{4\pi^2 r^3}{3T^2} \quad \vec{r} = \frac{U}{I} \quad F_v = \frac{F_n}{\rho}
 \end{aligned}$$



# Scientist

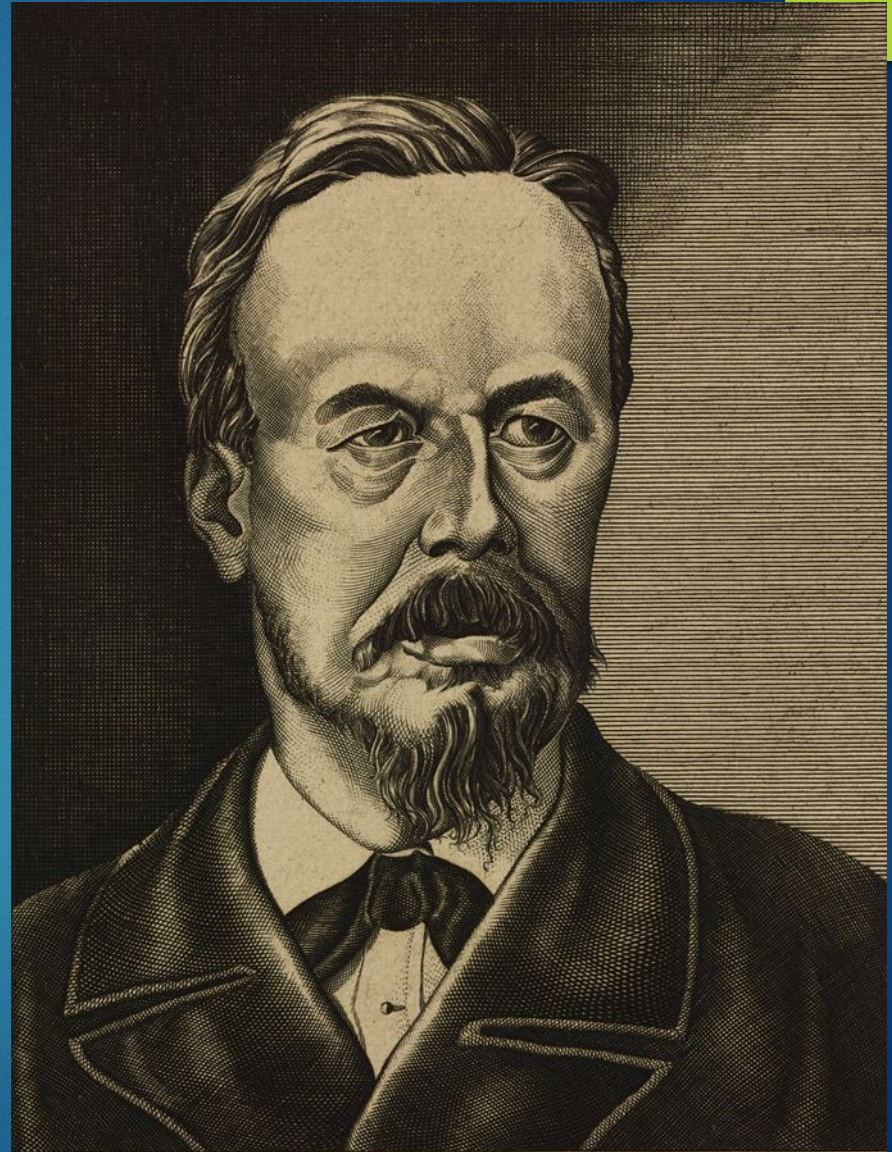
- ▶ Albert Einstein is a theoretical physicist, one of the founders of modern theoretical physics, laureate of the Nobel Prize in physics in 1921, a public figure and humanist.





# Russian scientist

- ▶ Alexander Stepanovich Popov  
- Russian physicist and electrical engineer, professor, inventor in the field of radio communications, Honorary Electrical Engineer, State Councilor.





# Informatics

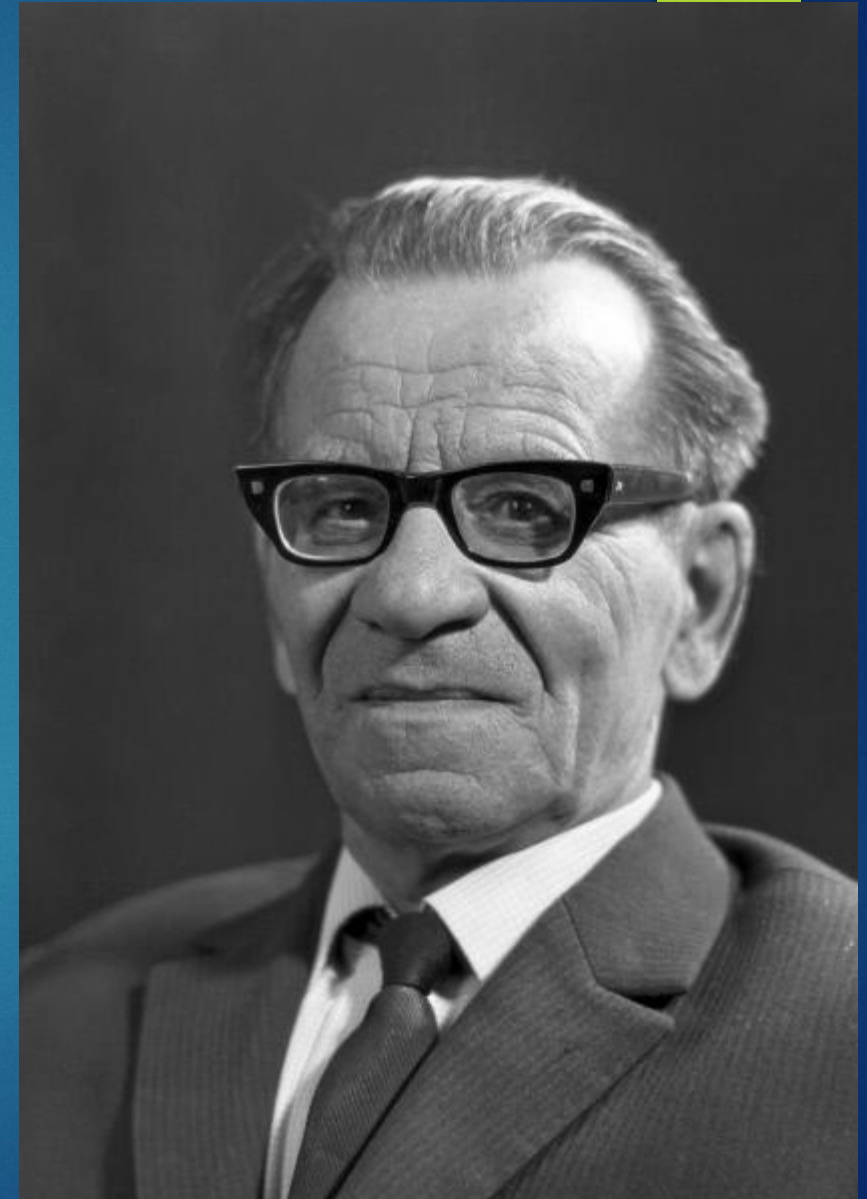
- ▶ Informatics is the science of the methods and processes of collecting, storing, processing, transferring, analyzing and evaluating information using computer technology, which makes it possible to use it for decision-making.

```
clickHandler = function() {  
  var href = $(this).attr('data-target')  
  var target = $(href.replace(/.*(?=#[^\s]+$)/, '')) // st  
  href.replace(/.*(?=#[^\s]+$)/, '')  
  if (!target.hasClass('carousel')) return  
  var options = $.extend({}, target.data(), {  
    slideIndex: $(this).attr('data-slide-to')  
  })  
  (slideIndex) options.interval = false  
  
  plugin.call(target, options)  
  
  (slideIndex) {  
    target.data('bs.carousel',  
  )  
}
```



# Scientist

- ▶ Sergei Alekseevich Yebedev - Soviet scientist, academician of the USSR Academy of Sciences (1953) and the Ukrainian Academy of Sciences (1945), author of works on the stability of power systems, computer technology.
- ▶ Under his leadership, the country's first laboratory for the development of computers was created at the Institute of Electrical Engineering of the Academy of Sciences of the Ukrainian SSR.





Thx for watching

