

**List Of Scientific Laws**

Law	statement	Inventors
Abel's theorem	Abel's theorem allows us to evaluate many series in closed form. For example, when $\sum_{n=0}^{\infty} x^n$ , we obtain $\frac{1}{1-x}$ for $ x  < 1$ , by integrating the uniformly convergent geometric power series term by term on $[0, x]$ ; thus the series converges to $\frac{1}{1-x}$ by Abel's theorem.	Niels Henrik Abel
Ampère's circuital law	Ampère's circuital law relates the integrated magnetic field around a closed loop to the electric current passing through the loop.	André-Marie Ampère
Archimedes's principle	Archimedes' principle states that the upward buoyant force that is exerted on a body immersed in a fluid, whether fully or partially submerged, is equal to the weight of the fluid that the body displaces and acts in the upward direction at the center of mass of the displaced fluid	Archimedes
Bernoulli's principle	Bernoulli's principle states that an increase in the speed of a fluid occurs simultaneously with a decrease in pressure or a decrease in the fluid's potential energy.	Daniel Bernoulli
Biot–Savart law	Biot–Savart law is an equation describing the magnetic field generated by a stationary electric current. It relates the magnetic field to the magnitude, direction, length, and proximity of the electric current.	Jean Baptiste Biot and Félix Savart
Cayley–Hamilton theorem	Cayley–Hamilton theorem states that every square matrix over a commutative ring (such as the real or complex field) satisfies its own characteristic equation.	Augustin Louis Cauchy
Coulomb's law	Coulomb's law, or Coulomb's inverse-square law, is a law of physics for quantifying the amount of force with which stationary electrically charged particles repel or attract each other.	Charles Augustin de Coulomb
Fermat's principle	Fermat's principle or the principle of least time, named after French mathematician Pierre de Fermat, is the principle that the path taken between two points by a ray of light is the path that can be traversed in the least time. This principle is sometimes taken as the definition of a ray of light.	Pierre de Fermat
Gauss's law	Gauss's law, also known as Gauss's flux theorem, is a law relating the distribution of electric charge to the resulting electric field. The surface under consideration may be a closed one enclosing a volume such as a spherical surface.	Johann Carl Friedrich Gauss
Graham's law	Graham's law of effusion (also called Graham's law of diffusion) was formulated by Scottish physical chemist Thomas Graham in 1848. Graham found experimentally that the rate of effusion of a gas is inversely proportional to the square root of the mass of its particles	Thomas Graham
Hilbert's basis theorem	Hilbert's basis theorem says that a polynomial ring over a Noetherian ring is Noetherian.	David Hilbert
Lagrange's theorem	Lagrange's theorem, in the mathematics of group theory, states that for any finite group $G$ , the order (number of elements) of every subgroup $H$ of $G$ divides the order of $G$ .	

Le Chatelier's principle	Le Chatelier's Principle is the principle when a stress is applied to a chemical system at equilibrium, the equilibrium will shift to relieve the stress. In other words, it can be used to predict the direction of a chemical reaction in response to a change in conditions of temperature, concentration, volume, or pressure.	Henri Louis le Chatelier
Maxwell's equations	Maxwell's equations are a set of partial differential equations that, together with the Lorentz force law, form the foundation of classical electromagnetism, classical optics, and electric circuits.	James Clerk Maxwell
Newton's law of universal gravitation	the law states that every point mass attracts every other point mass by a force acting along the line intersecting both points. The force is proportional to the product of the two masses, and inversely proportional to the square of the distance between them.	
Newton's laws of motion	<b>First law:</b> In an inertial frame of reference, an object either remains at rest or continues to move at a constant velocity, unless acted upon by a force. <b>Second law:</b> In an inertial reference frame, the vector sum of the forces $F$ on an object is equal to the mass $m$ of that object multiplied by the acceleration $a$ of the object: $F = ma$ . <b>Third law:</b> When one body exerts a force on a second body, the second body simultaneously exerts a force equal in magnitude and opposite in direction on the first body.	
Ohm's law	Ohm's law states that the current through a conductor between two points is directly proportional to the voltage across the two points.	Georg Ohm
Pascal's law	Pascal's law or the principle of transmission of fluid-pressure is a principle in fluid mechanics that states that a pressure change occurring anywhere in a confined incompressible fluid is transmitted throughout the fluid such that the same change occurs everywhere.	Blaise Pascal
Pythagorean theorem	In mathematics, the Pythagorean theorem, also known as Pythagoras' theorem, is a fundamental relation in Euclidean geometry among the three sides of a right triangle. It states that the square of the hypotenuse (the side opposite the right angle) is equal to the sum of the squares of the other two sides.	Pythagoras
Rolle's theorem	Rolle's theorem states that for any continuous, differentiable function that has two equal values at two distinct points, the function must have a point on the function where the first derivative is zero.	Michel Rolle
Stokes's law	Stokes's law, for the frictional force – also called drag force – exerted on spherical objects with very small Reynolds numbers in a viscous fluid. Stokes's law is derived by solving the Stokes flow limit for small Reynolds numbers of the Navier–Stokes equations.	George Gabriel Stokes