

1 Pythagoras's theorem	$a^2 + b^2 = c^2$	Pythagoras, circa 530 bc
2 logarithms	$\log(a) + \log(b) = \log(ab)$	John Napier, 1610
3 calculus	$f'(t) = \lim_{h \rightarrow 0} \frac{f(t+h) - f(t)}{h}$	Isaac Newton, Gottfried Leibnitz, 1690
4 force of gravity	$F = G \frac{(m_1 m_2)}{d^2}$	Isaac Newton, 1691
5 the square root of minus one	$i^2 = -1$	Leonhard Euler, 1750
6 Euler's formula for polyhedra	$V - E + F = 2$	Leonhard Euler, 1751
7 normal distribution	$\Phi(x) = \frac{1}{\sqrt{2\pi}\sigma} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$	Carl Friedrich Gauss, 1810
8 wave equation	$\frac{\partial^2 u}{\partial t^2} = c^2 \frac{\partial^2 u}{\partial x^2}$	Jean le Rond d'Alembert, 1746
9 Fourier transform	$f(\omega) = \int_{-\infty}^{\infty} f(x) e^{-2\pi i \omega x} dx$	Joseph Fourier, 1822
10 Navier-Stokes equation	$\rho \left(\frac{\partial v}{\partial t} + v \cdot \nabla v \right) = -\nabla p + \nabla \cdot T + f$	Claude-Louis Navier, George Stokes, 1845
11 Maxwell's equations	$\begin{aligned} \nabla \cdot E &= \rho \\ \nabla \times E &= -\frac{1}{c} \frac{\partial H}{\partial t} \end{aligned} \quad \begin{aligned} \nabla \cdot H &= 0 \\ \nabla \times H &= \frac{1}{c} \frac{\partial E}{\partial t} \end{aligned}$	James Clark Maxwell, 1865
12 second law of thermodynamics	$dS \geq 0$	Leonhard Boltzmann, 1874
13 relativity	$E = mc^2$	Albert Einstein
14 Shrodinger's equation	$i\hbar \frac{d}{dt} \psi = H \psi$	Edward Schrodinger, 1927
15 information theory	$H = -\sum p(x) \log p(x)$	Claude Shannon, 1949
16 chaos theory	$x_{t+1} = kx_t(1-x_t)$	Robert May, 1975
17 Black-Scholes equation	$\frac{1}{2} \sigma^2 S^2 \frac{\partial^2 V}{\partial S^2} + rS \frac{\partial V}{\partial S} + \frac{\partial V}{\partial t} - rV = 0$	Fischer Black, Myron Scholes, 1990