A MEMORIAL IN SIXTY-FOUR SQUARES

The Canon Board

The most consequential formulas of mathematics and physics, placed as a chessboard.

a	b	c	d	e	f	g	h
8	Continuum $2^{\aleph_0} > \aleph_0$	Incompleteness $T \nvdash \mathrm{Con}(T)$	Least action $\delta S = 0$	Fundamental group $\pi_1(S^1) = \mathbb{Z}$	Einstein $G_{\mu\nu} + \Lambda g_{\mu\nu} = \kappa T_{\mu\nu}$	Ampère–Maxwell $\nabla \times B = \mu_0 J + \mu_0 \epsilon_0 \partial_t E$	Higgs $V = -\mu^2 \lvert\phi\rvert^2 + \lambda \lvert\phi\rvert^4$	Friedmann $H^2 = 8\pi G\rho/3 + \Lambda c^2/3$
7	Prime number theorem $\pi(x) \sim x/\ln x$	Eigenvalue $Av = \lambda v$	Wave $\Box u = 0$	Riemannian metric $ds^2 = g_{\mu\nu}\, dx^\mu dx^\nu$	Noether symmetry $\Rightarrow \partial_\mu j^\mu = 0$	Faraday $\nabla \times E = -\partial_t B$	Mass–energy $E = mc^2$	Bekenstein Hawking $S = A/(4\ell_P^2)$
6	Euler identity $e^{i\pi} + 1 = 0$	Galois $\mathrm{Gal}(K/F)$	Residue $\oint f(z)\,dz = 2\pi i \sum \mathrm{Res}$	Gauss–Bonnet $\int K\, dA = 2\pi\chi$	Euler–Lagrange $\frac{d}{dt}\frac{\partial L}{\partial \dot{q}} = \frac{\partial L}{\partial q}$	No monopoles $\nabla \cdot B = 0$	Commutator $[x, p] = i\hbar$	Bell $S_{\mathrm{CHSH}} \leq 2$
5	Infinitude of primes $\forall N\, \exists p > N,\ p \text{ prime}$	Euler formula $e^{i\theta} = \cos\theta + i\sin\theta$	Basel $\sum_{n=1}^{\infty} n^{-2} = \pi^2/6$	Euler characteristic $V - E + F = 2$	Momentum $F = \frac{dp}{dt}$	Gauss $\nabla \cdot E = \rho/\epsilon_0$	Dirac $(i\gamma^\mu \partial_\mu - m)\psi = 0$	Shannon $H = -\sum p_i \log p_i$
4	Unique factorization $n = \prod p_i^{e_i}$	FTA $\deg p \geq 1 \implies \exists z \in \mathbb{C},\ p(z) = 0$	Fourier $\hat{f}(\xi) = \int f\, e^{-2\pi i x \xi}\, dx$	Euclidean metric $ds^2 = dx^2 + dy^2 + dz^2$	Kepler III $\frac{T^2}{a^3} = \frac{4\pi^2}{GM}$	Coulomb $F = k_e \frac{q_1 q_2}{r^2}$	Schrödinger $i\hbar\partial_t \Psi = \hat{H}\Psi$	Light $c = 1/\sqrt{\mu_0 \epsilon_0}$
3	Irrational $\sqrt{2} \notin \mathbb{Q}$	Binomial $(x+y)^n = \sum_{k=0}^{n} \binom{n}{k} x^{n-k} y^k$	Exponential $e = \sum_{n=0}^{\infty} \frac{1}{n!}$	Volume $V = \frac{4}{3}\pi r^3$	Gravitation $F = G\frac{m_1 m_2}{r^2}$	Boltzmann $S = k \ln W$	Uncertainty $\Delta x\, \Delta p \geq \hbar/2$	Lorentz $\gamma = (1 - v^2/c^2)^{-1/2}$
2	Pythagoras $a^2 + b^2 = c^2$	Congruence $a \equiv b \pmod{n}$	FTC $\int_a^b f'(x)\,dx = f(b) - f(a)$	Area $A = \pi r^2$	Newton II $F = ma$	First law $dU = \delta Q - \delta W$	de Broglie $\lambda = h/p$	Minkowski $ds^2 = -c^2 dt^2 + dx^2 + dy^2 + dz^2$
1	Arithmetic $1 + 1 = 2$	Zero 0	Derivative $\frac{dy}{dx} = f'(x)$	Circumference $C = 2\pi r$	Free fall $s = \frac{1}{2} g t^2$	Ideal gas $PV = nRT$	Planck $E = h\nu$	Hubble $v = H_0 d$

Files are domains. Ranks run from origin (1) to horizon (8).
Light and dark keep the chess field; the formulas keep the history.