

I Jones polynomial for right trefoil knot; Witten's path-integral formulation for Jones polynomial using Chern-Simons action.

II Associativity equation in Quantum Field Theory.

III Yang-Baxter equation.

IV Lorenz equations with orbit (Image: Scott Sutherland).

V Diagram of black hole with Schwartzschild radius.

VI The 5 regular polyhedra.

VII Equiangular spiral drawn in "golden" rectangle (side ratio = golden mean g), ratio of consecutive Fibonacci numbers approaches g, represented by its continued fraction expansion.

VIII Babylonian computation of $\sqrt{2}$. Tablet YBC 7289, Yale Babylonian Collection (Image: Bill Casselman).

IX Visual proof of Pythagorean Theorem.

X Cell decomposition of torus; Euler characteristic; Gauss-Bonnet formula.

XI Archimedes: volume of sphere. He had this figure carved on his tombstone.

XII Aharonov-Bohm effect.

XIII Supergravity Langangian; root diagram for Lie group E₈.

XIV Navier-Stokes equation with flow around cylinder (image: J.D. Kim, AMS, Stony Brook).

In Ellipse: (Kepler's 1st law represented by star, ellipse, planet)

1 Kepler's 2nd law.

2 Newton's force-acceleration equation.

 ${f 3}$ Kepler's ${f 3}^{rd}$ law.

4 Newton's gravitational law.

5 Einstein's General Relativity equation.

6 Schrödinger's equation.

7 Dirac equation.

8 Atiyah-Singer Theorem.

9 Yang-Mills Equations.

 ${\bf 10} \ {\bf Defining} \ {\bf relation} \ {\bf of} \ {\bf Supersymmetry}.$

In Background:

 \boldsymbol{A} Einstein's mass-energy equation.

B Maxwell's Equations.

C Stokes' Theorem.

D The boundary of a boundary is zero.

E Heisenberg's indeterminacy relation.

F Euler's formula for Zeta-function.

G Interaction between two strings; Feynman diagram shows coresponding interaction of particles, here the Compton scattering of a photon off an electron.