

224.00 **Principle of Angular Topology**

224.01 **Definition:** When expressed in terms of cyclic unity the sum of the angles around all the vertexes of a structural system, plus 720 degrees, equals the number of vertexes of the system multiplied by 360 degrees.

224.02 All local structural systems in Universe are always accomplished by nature through the elimination of 720 degrees of angle. This is the way in which nature takes two complete 360-degree angular tucks in the illusory infinity of a plane to render systems locally and visibly finite. The difference between visually finite systems and illusory infinity is two cyclic unities.

224.03 Structural systems are local, closed, and finite. They include all geometric forms, symmetric or asymmetric, simple or complex. Structural systems can have only one inside and only one outside. Two or more structures may be concentric and triangularly interconnected to operate as one structure.

224.04 The difference between the sum of all the angles around all the vertexes of *any* system and the total number of vertexes times 360° (as angular unity) is 720° , which equals two unities. The sum of the angles of a tetrahedron always equals 720° . The tetrahedron may be identified as the 720 differential between any definite local geometrical system (such as Greek "solid" geometry) and finite universe.

224.05 **Line:** A line has two vertexes with angles around each of its vertexial ends equal to 0° . The sum of these angles is 0° . The sum of the vertexes (two) times angular unity (360°) is 720° . The remainder of 0° from 720° is 720° , or two unities, or one tetrahedron. Q.E.D.

224.06 **Triangle:** The three angles of one "face" of a planar triangle always add up to 180° as a phenomenon independent of the relative dimensional size of the triangles. One-half of definitive cyclic unity is 180° . Every triangle has two faces—its obverse and reverse. Unity is two. So we note that the angles of both faces of a triangle add up to 360° . Externally, the sum of the angles around each of the triangle's three vertexes is 120° , of which 60° is on the obverse side of each vertex; for a triangle, like a line, if it exists, is an isolatable system always having positive and negative aspects. So the sum of the vertexes around a triangle (three) times 360° equals 1080° . The remainder of 360° from 1080° leaves 720° , or one tetrahedron. Q.E.D.

224.07 **Sphere:** The Greeks defined the sphere as a surface outwardly equidistant in all directions from a point. As defined, the Greeks' sphere's surface was an absolute continuum, subdividing all the Universe outside it from all the Universe inside it; wherefore, the Universe outside could be dispensed with and the interior eternally conserved. We find local spherical systems of Universe are definite rather than infinite as presupposed by the calculus's erroneous assumption of 360-degree-ness of surface plane azimuth around every point on a sphere. All spheres consist of a high-frequency constellation of event points, all of which are approximately equidistant from one central event point. All the points in the surface of a sphere may be interconnected. Most economically interconnected, they will subdivide the surface of the sphere into an omnitriangulated spherical web matrix. As the frequency of triangular subdivisions of a spherical constellation of omnitriangulated points approaches subvisibility, the difference between the sums of the angles around all the vertex points and the numbers of vertexes, multiplied by 360 degrees, remains constantly 720 degrees, which is the sum of the angles of two times unity (of 360 degrees), which equals one tetrahedron. Q.E.D.

224.08 **Tetrahedron:** The sum of the angles of a tetrahedron, regular or irregular, is always 720° , just as the sum of the angles of a planar triangle is always 180° . Thus, we may state two propositions as follows:

224.081 The sum of the surface angles of any polyhedron equals the number of vertexes multiplied by 360° minus one *tetrahedron*; and

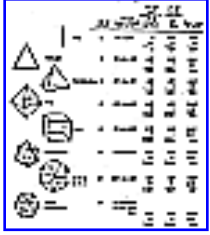
224.082 The sum of the angles of any polyhedron (including a sphere) is always evenly divisible by one *tetrahedron*.

224.10 Descartes: Descartes is the first of record to have discovered that the sum of the angles of a polyhedron is always 720° less than the number of vertexes times 360° . Descartes did not equate the 720° with the tetrahedron or with the one unit of energy quantum that it vectorially constitutes. He did not recognize the constant, whole difference between the visibly definite system and the invisibly finite Universe, which is always exactly one finite invisible tetrahedron outwardly and one finite invisible tetrahedron inwardly.

224.11 **The Calculus:** The calculus assumes that a sphere is infinitesimally congruent with a sphere to which it is tangent. The calculus and spherical trigonometry alike assume that the sum of the angles around any point on any sphere's surface is always 360 degrees. Because spheres are not continuous surfaces but are polyhedra defined by the vectorially interconnecting chords of an astronomical number of event foci (points) approximately equidistant from one approximate point, these spherically appearing polyhedra—whose chords emerge from lesser radius midpoints to maximum radius convergences at each of the spherically appearing polyhedra's vertexes, ergo, to convex external joining—must follow the law of polyhedra by which the sum of all the angles around the vertexes of the polyhedra is always 720 degrees less than 360 degrees times the number of vertexes. The demonstration thus far made discloses that the sum of the angles around all the vertexes of a sphere will always be 720 degrees or one tetrahedron—less than the sum of the vertexes times 360 degrees—ergo, one basic assumption of the calculus and spherical trigonometry is invalid.

224.12 **Cyclic Unity:** We may also say that: where unity (1) equals 360° , 180° equals one-half unity ($1/2$), and that 720° equals two times unity (2); therefore, we may identify a triangle as one-half unity and a tetrahedron as cyclic unity of two. As the sum of a polyhedron's angles, 720° is unique to the tetrahedron; 720° is the angular name of the tetrahedron. 720° is two cyclic unities. The tetrahedron is the geometrical manifest of "unity is plural and, at minimum, is two." The tetrahedron is twoness because it is congruently both a concave tetrahedron and a convex tetrahedron.

224.13 Where cyclic unity is taken as 360 degrees of central angle, the difference between infinity and finity is always exactly *two*, or 720 degrees, or two times 360 degrees, or two times unity. Cyclic unity embraces both wave and frequency since it represents angles as well as cycles. This is topologically manifest in that the number of vertexes in any structural system multiplied by 360 degrees, minus two times 360 degrees, equals the sum of the angles around all the vertexes of the system.



224.20 **Equation of Angular Topology:**

$$S + 720^\circ = 360^\circ X^n$$

Where:

S = the sum of all the angles around all the vertexes (crossings)

X^n = the total number of vertexes (crossings)

[Table 224.20](#)

224.30 **Polarity:** Absolutely straight lines or an absolutely flat plane would theoretically continue outward to infinity. The difference between infinity and finity is governed by the taking out of angular sinuses, like pieces of pie, out of surface areas around a point in an absolute plane. This is the way lampshades and skirts are made. Joining the sinused fan-ends together makes a cone; if two cones are made and their open (ergo, infinitely trending) edges are brought together, a finite system results. It has two polar points and an equator. These are inherent and primary characteristics of all systems.

224.40 **Multivalent Applications:** Multiple-bonded bivalent and trivalent tetrahedral and octahedral systems follow the law of angular topology. Single-bonded monovalent tetrahedral and octahedral arrangements do not constitute a system; they are half systems, and in their case the equation would be:

$$S + 360^\circ = 360^\circ X^n$$

224.50 **Corollary: Principle of Finite Universe Conservation:** By our systematic accounting of angularly definable convex-concave local systems, we discover that the sum of the angles around each of every local system's interrelated vertexes is always two cyclic unities less than universal nondefined finite totality. We call this discovery the principle of finite Universe conservation. Therefore, mathematically speaking, all defined conceptioning always equals finite Universe minus two. The indefinable quality of finite Universe inscrutability is exactly accountable as two.

224.60 **Tetrahedral Mensuration:** The sum of the angles around all vertexes of any polyhedral system is evenly divisible by the sum of the angles of a tetrahedron. The volumes of all systems may be expressed in tetrahedra.



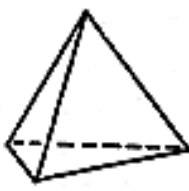

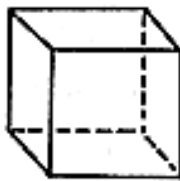

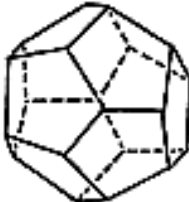

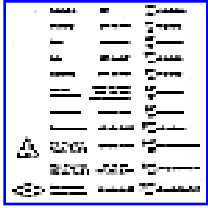
	No. of Vertices	Sum of Angles around each Vertex	Sum of angles multiplied by No. of Vertices. De-Finite	No. of Vertices multiplied by 360°. Finite	Finite minus De-Finite
	2	$0^\circ \times 1 = 0^\circ$	0° $\times 2$ <u>0°</u>	360° $\times 2$ <u>720°</u>	720° $- 0$ <u>720°</u>
	3	$60^\circ \times 2 = 120^\circ$	120° $\times 3$ <u>360°</u>	360° $\times 3$ <u>1080°</u>	1080° $- 360$ <u>720°</u>
	4	$60^\circ \times 3 = 180^\circ$	180° $\times 4$ <u>720°</u>	360° $\times 4$ <u>1440°</u>	1440° $- 720$ <u>720°</u>
	6	$60^\circ \times 4 = 240^\circ$	240° $\times 6$ <u>1440°</u>	360° $\times 6$ <u>2160°</u>	2160° $- 1440$ <u>720°</u>
	8	$90^\circ \times 3 = 270^\circ$	270° $\times 8$ <u>2160°</u>	360° $\times 8$ <u>2880°</u>	2880° $- 2160$ <u>720°</u>
	12	$60^\circ \times 5 = 300^\circ$	300° $\times 12$ <u>3600°</u>	360° $\times 12$ <u>4320°</u>	4320° $- 3600$ <u>720°</u>
	20	$108^\circ \times 3 = 324^\circ$	324° $\times 20$ <u>6480°</u>	360° $\times 20$ <u>7200°</u>	7200° $- 6480$ <u>720°</u>
	12	$90^\circ \times 2 = 180^\circ$ $60^\circ \times 2 = 120^\circ$ <u>300°</u>	300° $\times 12$ <u>3600°</u>	360° $\times 12$ <u>4320°</u>	4320° $- 3600$ <u>720°</u>

Table 224.20 Angular Topology Independent of Size.



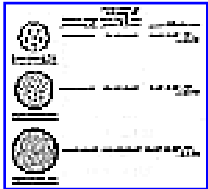
224.70 *Equation of Tetrahedral Mensuration:*

Sum of face angles

$$\frac{\text{-----}}{720^\circ} = n \text{ tetrahedra}$$

[Table 224.70A](#)

Where: $720^\circ =$ one tetrahedron



[Table 224.70B](#)

225.00 Principle of Design Covariables

225.01 **Definition:** The principle of design covariables states that angle and frequency modulation, either subjective or objective in respect to man's consciousness, discretely defines all events or experiences which altogether constitute Universe.

225.02 There are only two possible covariables operative in all design in the Universe. They are modifications of angle and frequency.

225.03 Local structure is a set of frequency associable (spontaneously tunable), recollectible experience relationships, having a regenerative constellar patterning as the precessional resultants of concentrically shunted, periodic self-interferences, or coincidences of its systematic plurality of definitive vectorial frequency wavelength and angle interrelationships.

226.00 **Principle of Functions**

226.01 **Definition:** The principle of functions states that a function can always and only coexist with another function as demonstrated experimentally in all systems as the outside-inside, convex-concave, clockwise-counterclockwise, tension-compression couples.

226.02 Functions occur only as inherently cooperative and accommodatively varying subspects of synergetically transforming wholes.

226.10 **Corollary: Principle of Complementarity:** A corollary of the principle of functions is the principle of complementarity, which states that two descriptions or sets of concepts, though mutually exclusive, are nevertheless both necessary for an exhaustive description of the situation.



	Tetrahedron	720°	$\frac{720^\circ}{720^\circ} = 1$ tetrahedron
	Octahedron	$240^\circ \times 6 = 1440^\circ$	$\frac{1440^\circ}{720^\circ} = 2$ tetrahedra
	Prism	$240^\circ \times 6 = 1440^\circ$	$\frac{1440^\circ}{720^\circ} = 2$ tetrahedra
	Cube	$270^\circ \times 8 = 2160^\circ$	$\frac{2160^\circ}{720^\circ} = 3$ tetrahedra
	Icosahedron	$500^\circ \times 12 = 5600^\circ$	$\frac{5600^\circ}{720^\circ} = 5$ tetrahedra
	Rhombic Dodecahedron	$109^\circ 28' \times 24 = 2628^\circ$ $70^\circ 32' \times 24 = 1692^\circ$ $2628^\circ + 1692^\circ = 4320^\circ$	$\frac{4320^\circ}{720^\circ} = 6$ tetrahedra
	Dodecahedron	$524^\circ \times 20 = 6480^\circ$	$\frac{6480^\circ}{720^\circ} = 9$ tetrahedra
	Triacontahedron	$180^\circ \times 60 = 10,800^\circ$	$\frac{10,800^\circ}{720^\circ} = 15$ tetrahedra
	Two Frequency Regular Geodesic	$180^\circ \times 80 = 14,400^\circ$	$\frac{14,400^\circ}{720^\circ} = 20$ tetrahedra = 5×2^2
	Three Frequency Alternate Geodesic	$20^\circ \times 9 = 180^\circ$ $180^\circ \times 180 = 32,400^\circ$	$\frac{32,400^\circ}{720^\circ} = 45$ tetrahedra = 5×3^2
	Four Frequency Triacon Geodesic	$180^\circ \times 240 = 43,200^\circ$	$\frac{43,200^\circ}{720^\circ} = 60$ tetrahedra = 15×2^2

Table 224.70A *Tetrahedral Mensuration Applied to Well-Known Polyhedra*. We discover that the sum of the angles around all vertexes of all solids is evenly divisible by the sum of the angles of a tetrahedron. The volumes of all solids may be expressed in tetrahedra.




	<i>Number of Vertices Multiplied by 360°</i>	<i>Number of Triangles Multiplied by 180° Equals Sum of Angles around All Vertices</i>	<i>Difference</i>
 Regular Geodesic Two-Frequency Icosahedron	$42 \times 360^\circ = 15,120^\circ$	$80 \times 180^\circ = 14,400^\circ$	$15,120^\circ - 14,400^\circ = 720^\circ =$ 1 tetrahedron
 Regular Geodesic Four-Frequency Icosahedron	$162 \times 360^\circ = 58,320^\circ$	$320 \times 180^\circ = 57,600^\circ$	$58,320^\circ - 57,600^\circ = 720^\circ =$ 1 tetrahedron
 Regular Geodesic Nine-Frequency Icosahedron	$812 \times 360^\circ = 292,320^\circ$	$1620 \times 180^\circ = 291,600^\circ$	$292,320^\circ - 291,600^\circ = 720^\circ =$ 1 tetrahedron

Table 224.70B *Tetrahedral Mensuration Applied to Spheres.*

226.11 Every fundamental behavior patterning in Universe always and only coexists with a complementary but non-mirror-imaged patterning.

227.00 Principle of Order Underlying Randomness



Table 227.01

227.01 **Definition:** The number of relationships between events is always

$$\frac{N^2 - N}{2}$$

Where: N = the number of events of consideration

227.02 The relationships between four or more events are always greater in number than the number of events. The equation expresses the conceptuality of the number of the most economical relationships between events or the minimum number of interconnections of all events.














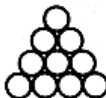



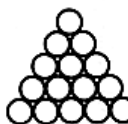
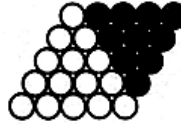


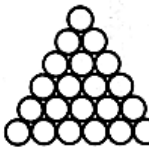
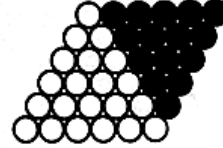
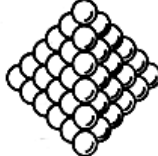

227.03 The number of telephone lines necessary to interequip various numbers of individuals so that any two individuals will always have their unique private telephone line is always $(N^2 - N)/2$, where N is the number of telephones. This is to say that all the special interrelationships of all experiences define comprehension, which is the number of connections necessary to an understanding of "what everything is all about." When we understand, we have all the fundamental connections between the star events of our consideration. When we add up all the accumulated relationships between all the successive experiences in our lives, they will always combine cumulatively to comprise a tetrahedron, simple or compound.

228.00 Scenario Principle

228.01 **Definition:** The scenario principle discloses that the Universe of total man experience may not be simultaneously recollected and reconsidered, but may be progressively subdivided into a plurality of locally tunable event foci or "points," of which a minimum of four positive and four negative are required as a "considerable set," that is, as the first finite subdivision of finite Universe.

228.10 **Considerable Set:** All experience is reduced to nonsimultaneously "considerable sets"; irrelevant to consideration are all those experiences that are either too large and therefore too infrequent, or too minuscule and therefore too frequent, to be tunably considerable as pertaining to the residual constellation of approximately congruent recollections of experiences.

UNDERLYING ORDER IN RANDOMNESS

No. of Events	Conceptuality of number of most economical relationships between events or minimum number of inter-connections of all events	No. of Relationships $\frac{n^2 - n}{2}$	Closest packed, symmetrical and most economical conceptual arrangement of number relationships.	Sum of Adjacent Relationships $(n-1)^2$	Conceptuality in closest packed Symmetry Note: This occurs as \diamond "diamonds" and not as \square "squares".	Sum of Experiences or of Events Is Always Tetrahedral
1		0				
2	 AB	1		$0 + 1 = 1$		
3	 AB, BC, AC	3		$1 + 3 = 4$		
4	 AB, BC, CD, AC, BD, AD	6		$3 + 6 = 9$		
5		10		$6 + 10 = 16$		
6		15		$10 + 15 = 25$		
7		21		$15 + 21 = 36$		
7	 <small>Same number of events could be in random array but minimum total of relationships are same in number.</small>	21				

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Table 227.01 Underlying Order in Randomness.

228.11 A "considerable set" inherently subdivides all the rest of irrelevant experiences of Universe into macrocosmic and microcosmic sets immediately outside or immediately inside the considered set of experience foci.

228.12 **Scenario Principle:** Considerable Set: In considering all experiences, the mistakes of the past and the anticipations of the future are metaphysically irrelevant. We do not have to be preoccupied with hypothetical or potential experiences because we are always living in the *now*. Living in the present tense obviates impatience. (See Sec. [529.11](#).)

229.00 **Principle of Synergetic Advantage**

229.01 **Definition:** The principle of synergetic advantage states that macro → micro does not equal micro → macro. Synergetic advantage is only to be effected by macro → micro procedure. Synergetic advantage procedures are irreversible. Micro → macro procedures are inherently frustrated.

229.02 The notion that commencing the exploration of the unknown with unity as one (such as Darwin's single cell) will provide simple and reliable arithmetical compounding (such as Darwin's theory of evolution: going from simple → complex; amoeba → monkey → man) is an illusion that as yet pervades and debilitates elementary education.

229.03 Synergy discloses that the information to be derived from micro → macro educational strategy fails completely to predict the experimentally demonstrable gravitational or mass-attraction integrities of entropically irreversible, universal scenario reality.

229.04 Human experience discloses the eminent feasibility of inbreeding biological species by mating like types, such as two fast-running horses. This concentrates the fast- running genes in the offspring while diminishing the number of general adaptability genes within the integral organism. This requires the complementary external care of the inbred specialist through invention or employment of extracorporeal environmental facilities—biological or nonbiological. It is easy to breed out metaphysical intellection characteristics, leaving a residual concentration of purely physical proclivities and evolving by further inbreeding from human to monkey. (Witness the millions of dollars society pays for a "prizefight" in which two organisms are each trying to destroy the other's thinking mechanism. This and other trends disclose that a large segment of humanity is evolving toward producing the next millennia's special breed of monkeys.) There is no experimental evidence of the ability to breed in

the weightless, metaphysically oriented mind and its access to conceptionings of eternal generalized principles.

229.05 All known living species could be inbreedingly isolated from humans by environmental complementation of certain genetic proclivities and lethal exclusion of others, but there is no experimental evidence of any ability to compound purely physical proclivity genes to inaugurate metaphysical behaviors humanity's complex metaphysical- physical congruence with the inventory of complex behavioral characteristics of Universe.

229.06 Universe is the aggregate of eternal generalized principles whose nonunitarily conceptual scenario is unfoldingly manifest in a variety of special cases in local time-space transformative evolutionary events. Humans are each a special-case unfoldment integrity of the complex aggregate of abstract weightless omni- interaccommodative maximally synergetic non-sensorial Universe of eternal timeless principles. Humanity being a macro → micro Universe, unfolding eventuation is physically irreversible yet eternally integrated with Universe. Humanity cannot shrink and return into the womb and revert to as yet unfertilized ova.

229.10 **Corollary: Principle of Irreversibility:** The principle of irreversibility states that the evolutionary process is irreversible locally in physical "time-space"—that is, in frequency and angle definitioning, because the antientropic metaphysical world is not a mirror-imaged reversal of the entropic physical world's disorderly expansiveness.

230.00 **Tetrahedral Number**

230.01 **Definition:** The number of balls in the longest row of any triangular unit-radius ball cluster will always be the same as the number of rows of balls in the triangle, each row always having one more than the preceding row, and the number of balls in the complete triangular cluster will always be

$$\frac{(R + 1)^2 - (R + 1)}{2}$$

Where: R = the number of rows of balls, or the number of balls in the longest row.

230.02 We can stack successively rowed triangular groups of balls on top of one another with one ball on the top, three below that, and six below that, as cannon balls or oranges are stacked. Such stacks are always inherently tetrahedral. We can say that the sum of all the interrelationships of all our successive experiences from birth to now—for each individual, as well as for the history of all humanity—is always a tetrahedral number.

231.00 **Principle of Universal Integrity**

231.01 **Definition:** The principle of universal integrity states that the wide-arc tensive or *implosive* forces of Universe always inherently encompass the short-arc vectorial, explosive, disintegrative forces of Universe.

231.02 The gravitational constant will always be greater than the radiational constant—minutely, but always so. (For further exposition of this principle, see Secs. [251.05](#), [529.03](#), [541](#) and [1052](#).)

232.00 **Principle of Conservation of Symmetry**

232.01 **Definition:** Whereas the tetrahedron has four symmetrically interarrayed poles in which the polar opposites are four vertexes vs. four faces; and whereas the polar axes of all other symmetrical structural systems consist of vertex vs. vertex, or mid-edge vs. mid-edge, or face vs. face; it is seen that only in the case of vertex vs. face—the four poles of the tetrahedron—do the four vertexial “points” have polar face vacancies or “space” into which the wavelinear coil spring legs of the tetrahedron will permit those four vertexes to travel. The tetrahedron is the only omnisymmetrical structural system that can be turned inside out. (See Secs. [624.05](#), [905.18](#) and [905.19](#).)

232.02 Take the rubber glove that is green outside and red inside. Stripped off, it becomes red. The *left-handedness* is annihilated: inside-outing. You do not lose the convex-concave; all you lose is the *leftness* or the *rightness*. Whether it is a tree or a glove, each limb or finger is a tetrahedron.

232.03 Synergetics shows that the tetrahedron can be extrapolated into life in all its experience phases, thus permitting humanity's entry into a new era of cosmic awareness.

[Next Section: 240.00](#)
