Take it to Proof, Test Goedel.
Compact Modus Ponens Functor Inference
in Jan Łukasiewicz's Intuitionist Logic, & ct.

Useful reading for this paper: A Theoretical Critique of Theory
http://vixra.org/abs/1508.0161

I distrust anything that does not come first of my own hand. The illiterate wealthy are narcissists with a choice to look at what goes from hand to hand. The illiterate poor get literacy because they live the hand to hand. This is what the United States is all about. It extends further, naturally.

If an error is suspected is in a Theory, I claim the right to lay down a provisional functor, which gives me time to inquire of the Theory. I lay that functor down invariantly as what it is: a contextual mapping from [[functor] Fa to Fb, context]] where functors carry context as opposed to functions mapping Fa to Fb, where the outcome is known.

Without such mathematical function-syntax in our corpus of thought, inquiry as Theorizing could not well be justified, because it could not well proceed. Intuitionist sets are not valid without the justification property which is inherent in them.

Jan Łukasiewicz's intuitionist logic (JanL/intuit) changed this; he compacted the property of disjunction and existence, with great ingenuity and a reworking of logical connectives into functor-algebra, or simply, the connectives became functors able to handle mathematical data, such as transposed conjugates in group theory. He discovered the timeless mechanism, it reads:

$NTpNq$. Just notice which formula p and q work in. We will end up going into this very deeply later one. But in any case, there is much promise. Absurdity would follow if denied. People take knowledge much too much for granted. But matters are open to inquiry at all times. I noticed that Wolfram has mastered the subject at http://mathworld.wolfram.com/IntuitionisticLogic.html.
None of the material presented so far has been derived from reading Wolfram.

Man on the street who has abandoned his university studies, and has no time for his old questions: "If you want to prove something to me, then take it to proof . . . before you even remotely approach me. Don't behave like a chimpanzee with me. You want to tell me something is true, on the other hand, that X happened, or is the case, and that that's the truth, then damn if I care. Move on, and go talk to someone else. It pertains to me? Go join a Comintern before I throw you out a window. Caveat: Do you wear a watch? OK, then make it plain and I'll listen."

Basis: Malcolm X, a week or so before his assassination, when confronted with its impedance by a friend: Malcolm: "Never trust a man

who doesn't wear a watch.” Not quoted from this site, but here is the site run by his daughter's I believe.
http://malcolmx.com/

In that strain, Let Theory own Critique. When you do, critique will probably not be able to own Theory; Theory will wipe it out: such is its inhuman power. When writing a critique of The Theory you are constantly meeting resistance from it; the push-back of such critique is comparable to animalism.

One wonders. Why it is that when we think of The Theory, when it [Theory] is the subject of critique and inquiry, we say, ‘If it’s a Theory, let us make a gratuitous entry of it into the books, because it is sure to tell us that is not gratuitous.’

An Overview View – Olympian pace Nash's writings in the subject
I have an overview concept of the Gödel System. I have laid down a functor, I can predicate of it of the System, without mentioning it (the functor):

The fact that this prediction occurs when looking down on and examining Gödel’s incompleteness theorems is fair, since it is asking the question as to whether based on what we know outside of a possible syntactical limit or domain, is there a computational algorithm at all. Is it observation dependent. But this does take into account and admit the lack of a proof for an encoded P inside of the syntactical limit of the domain. Do we see or detect an algorithm **at all** when we look down on the theorem in this manner, as into a cylinder, and also just outside its walls, with 360 birds eye degree visibility at every tangent? What's the use of decidability really?

The Lie algebra has arithmetic type = multiplication withint the context of sclars, lattices, an matrices. Lie algebra is constantly looking to create (a) new M x Mn complete diagonal(s) representation of a matrix of the lattices in a fictional largetr finite matrix L (fictional because L would be a group, that could only be obtainable by vectoring to a Lie Group), by algebraic decomposition. The Lie algebra's symmetry-checks and factorization in the scalar decomposition has the rules NOT(RHS & LHS) and NOT(LHS & RHS) for decomposition by symmetry-check-cancellation across the LHS and RHS of the equal sign and by NOTFACTOR(LHS & NOTRHS) or NEC-FACTOR(LHS & RHS) if written in the a basic modal logical propostional calculus.

Those are derivations of inference. They are the types of axioms needed to take to PRF matters r-TRU in a syntactical domain that is type MULT. Wouldn't a Gödel numberTRU in a syntactical domain that is type MULT. Its sentences fall-*in* to a provisional history of mathematics. We then presume we looked down at that time at S and S was the Lie algebra with this **derivation type inference** with a **type proof, or did we see the PA (Peano Arithemtic, let's say) axiomatic type**? Was it transited to encodement to a Godel number by PA type mult., by a Godel procedure for translating axioms into encode type inference of type mult by convention or convenience, and if so, on what basis, if not arbitrary? Or did it get translated into encodement in a Goedel number automatically out of and because the inference type was PA mult.?

If there's a system S that **Goedel's theorems can't break**, or a S which **repairs itself of true but unprovable axioms**, and & or a system S that can't **decouple truth and proof from another** within S, then why? Because there is a difference of domain, say PRF only comes from outside of the S that we are looking down on, or vice versa? Or that TRU is really outside of S, never having left outside-S, but simply getting encoded t a Godel number? There is no reason not to conjecture either of these two possibilities given such mechanisms automorphisms that can target any object. Or is the S simply something that considers itself inoperable, and failing all else therefore will otherwise not allow decoupling **with only PRF left and TRU dropped: intuitionist implication needed to accentuate that message to mathematicians? It is this: $NTpNq$**. Whatever the way, S is still inconsistent, ***Then*** [then, meaning when, not where or what but when: a mechanism works only in time, it is not an abstract object and it is not the working out of the mathematics to arrive or derive that mathematical object] Gödel’s theorem's are traced [tr, calque] out of this S. Because S is still inconsistent (logicians and mathematicians should be honest and admit that it is necessitation, but not a priori, but because there will always be axioms that are true in a system and true then in system S but not provable, S is a repository for axioms that do not hold in proof in their original source systems where they nonetheless true), Gödel’s theorems still hold, but are not binding in a court of law where the full expression of modus ponens is required for **evidentiary purposes.**

Thus the preservation of representation of the matrix l with identity is maintained, symmetry and factorization is preserved, both necessary in evidentiary matters in constitutive mode, i.e. the court law, and Gödel’s theorems are applicable for TRU and PRF in any S from a any source s in a court of law.

From Wolfram: “Proofs by contradiction are not permissible in intuitionistic logic. All intuitionistic proofs are constructive, which is justified by the following properties. Intuitionistic propositional logic has the disjunction property: If $F \vee G$ is provable in intuitionistic propositional calculus, then either F or G is provable in intuitionistic propositional calculus. Intuitionistic predicate logic has the existence property: If $\exists x F(x)$ is a formula without free variables, and it is provable in intuitionistic predicate logic, then there is term t without free variables such that $F(t)$ is provable in intuitionistic predicate logic.” Exactly. And so with his entry on modus ponens.

So for example: where does *F(t)* stand to take a position. In court? Where is G? Can we ignore all rules of reason and logic [we can't resort to Russell's def. Description, we aren't allowed quantifiers] say there is also a *G(t).* Why not? Not to do so is only because proof of it by negation is holding it back. But negation is not allowed in intuitionist propositional calculus either. And F and G with a future *t* can count on intuitionist logic this prohibition of negation being solved by time in the future, with an adjusted method in intuitionist logic. Over *T' T (time).* And the thing is done.

That’s how Jan Łukasiewicz defined intuitionist implication / entailment, which has only one form in the intuitionist logic, which is PRF (with almost no induction, just a little) that he had a perfect logic:

Jan Łukasiewicz demonstrated that by using a /**variable functor/**, in a classical interpretation of {implication by negation}, was possible with his intuitionist connectives [which by their composition are not able to do anything but view the law of excluded middle from the outside looking in], and allowing the only operator that exists in the classical propositional logic, negation constituent in intuitionist logic. Instead of writing F and asserting the disjunction and existence property (he couldn’t do that, that's classical set theory, although in classical propositional logic the some functor can be used to prove a contradiction in the propositional logic false using substitution, and 'detachment' / disjunction, in a von Wright system), he did this: $NTpNq$ ≡ F. Just notice where p and q stand in formalized working order.

F [implication], T [conjugation], N → $NTpNq$

F, T, N → $NTpNq$.

That is visibly algebraically accomplished.

His accomplishment in this was *that* he formulated the definition of implication using a /variable-functor/ as the implication. He didn’t *assert* implication by his functor F for it, he *asserted* by negating his functor for conjugation T. It's remains mechanical.

Mathematics must have a vaster range of expression than Goedel’s theorems and his so-called proofs by induction in JanL/intuit logic say are encrypted in an S with unreleased information, somehow implying greater range of expression *there*. If that were the case, standard modus ponens in [intuitionist set theoretic] with the disjunction and existence property shouldn’t be allowed for in Gödel’s S’s, in which case, no area of expertise allows modus ponens. One may say modus ponens is true in life and subsumed and greater than it was before, but then when, not where, *when, in what **way**?* Good point. *When* Q falls-thru, as the consequent causal effect and entailment of P taken to PRF. The ‘Theory of Q,’ i.e. the representation of Q **[as an entailed and mechanical and meaningful form of information]** is an identity matrix by the type data inference of multiplicative transposition qua decomposition from a lattice-entries topology L to a singly unique 3x3 identity matrix l. By definition of the Poincare Group **[fundamental for quantum mechanics, extended Lie algebras working for properties such as spin]** this matrix is identified with the SO(3) group of special orthogonal matrices under matrix multiplication, a simple matter of i.e. a lattice typology of orthogonal matrices.

But are we being fooled? I think looking at the system from above to see if there is an algorithm *outside* is the way our minds are able to accept the particulars of the Lie algebra’s mechanics subsuming Gödel’s theorems with its unique factorizations and symmetry-checks, and the *way* they do it and *when*; that doesn't mean that they don't or do however, it’s not proven, but it means that Gödel’s theorems don’t apply **right now, in this interval**. Or rather, from the apophatic view, it’s why they **do when they do**, why they **do when they can**. It's a particular persuasion of the mind that the Lie algebra is one of the algebras that are symbolic 'algorithms' required for Goedel’s theorems but actually are algebraically true and proven themselves in the Lie algebra and visible when looking from above, from an overview. This is interesting. As with Berkeley’s **De Motu**, something can never come prior to itself. That is where modality as containment, and containment as modality, meet: a person is at each moment locked out of doing what s/he are not doing. That is multiplicative decomposition, where we are ourselves using data type inference see this.

We got ourselves confused, and even then we aren't paroled. Not just any algorithm will do. That's why there's all the talk on decidability. That's factored out, also, however. So is the Axiom of Choice, not matter its amenability to intuitionist thinking, in which it in any case is not subject to the law of excluded middle: Disjunct, existential, and arithmetic type inference of all five types at one's disposal for the type of the algebra on top of co-tenable world lines do the job. Once in the system where axioms had to go as TRU but not PRVBL, TRU but not PRVBLE statements by a type inference of multiplicative decomposition of lattices and the greater matrix L syntax disproportionate to every possible matrix decomposition in it into uniques within the system work fine. The encoded axioms are subject to aspect-seeing dependent on the constitutive modality, a referentially non-opaque representation. The constitutive modality is represented in institutional form as a matrix: on the x axes are the members, on the y axes are the conventions. This is subject to decomposition by the Lie algebra to a general representation.

JanL/intuit was interested in assertive and other illocutionary modalities. Demonstration came by showing or asserting, not by writing or demonstrating proofs. These two things make a difference for studying topology or a specific topology as a strongly constitutive weakly-causal Lie-algebraic representation by the Lie group which it is associated with: at the Olympian level as H → G → g, where H is Hilbert space, with the Poincare Group being the a Theory-check for constitutive extension to a larger interpretation of the Poincare Group out of the Quantum Mechanics and general relativity inherent in the human, such as that when walking to class a giant chasm is not expected to open [and suck one in], or that gravity will collapse and we will suddenly be in anti-gravity. The would be called or named by Nash as the Olympian perspective of a formal matter. It is necessary when counting the Lie algebra as a seriously associated representation of it

Lie group that permits it to interact with connected groups. In such interaction any topology of the form H → G → g is compacted so as to be constitutive.

> bra. Here too high school ends somewhere near the end of the seventeenth century (manipulation with polynomials and other algebraic expressions). University courses in algebra usually start with the notion of a *group* (a field or a vector space). These notions are usually introduced in an abstract axiomatic form, so that the university requires the student to pass from the coordinative form of language straight to the constitutive one. Just as in mathematical analysis, so also in algebra there is a gap caused by skipping the compositive and the interpretative forms of language. An analogical gap exists also in geometry, where the university course starts with *topology*. Topology is based on the constitutive form of language. The student does not have much chance to comprehend this form if he had not understood the interpretative and the integrative form earlier. Just as in analysis or group theory, so also in topology the student can memorize the subject and understand the

Goedel's incompleteness theorems from that view are modal integrals of modus ponens, meaning the theorems are closed -- among many other things –- but have a type inference algebra that correspondence with the Goedel number that the Lie algebra may make Turing decidable or Goedel computable, as the true and proven algebra. Axioms or theorems of a system is decoded as such type leaving a trace [trace = calque → loan-word → auxiliary modifier] on nomic entailment-implication in the p → q conditionship relation, get a world-word fit.

This compact form of modal auxiliary verbs moves propositional logic to intuitionist logic and all that such a movement implies. Modal auxiliaries in any formal or natural languagewhere in fact they've always struggled to be without resorting to systems of modal logic; he had a system of modality, but not of modal logic which inevitably and invariably amounts to converting the terms of propositional logic and to propositional expressions with possibility and necessity operators ◊ and □.

This is represented by a complex conjugate transpose -- conjugating with complex and real numbers on a graph and transposing it to negative numbers on the Im y axis.

There must be such ingenuity built into mathematics itself. Gödel’s theorems imply it, they indicate a problem, a task to be attended to in real time, they state not an eternal problem of Platonic proportions ordering would otherwise be an existential threat to setting tasks and letting mathematics carry its full expressive power and extend, among other things.

In any case it’s accepted that no such algorithm can exist for PM’s true but unprovable axioms, so it’s purely imaginary but a necessary Platonic assumption for Goedel’s theorems. Unless it is algebraic and detectable at an outer of the theoretical surface topology of in the name of a derivative at a tangent, or an inside integral from the Olympian view (Nash), detectable only by visible slopes of tangents inside S. We'll say S is a hyperbolic cylindar.

It seems that Gödel forgot about mathematics systematically in-built intrigues. What’s not a system? Gödel forgot a basic truism: for every true but unprovable axiom there is a Gödel number and sentence for it, there is a type inference algebra that preserves Goedel’s theorems themselves, that they remain inconsistent because there was no algorithm to decode the axiom; the axiom was decoded by a natural algebra corresponding to the type inference system that it came out of. We finally come to the intuitionist’s logic of implication and entailment, expressed by negation, in other words the set theoretic disjunction and existence property. It derived of the representation matrix l identity of identity 1 by multiplication factorization and symmetry-checking that happens to build the Lie algebra to such a representation the Lie algebra translated to weak modus ponens: F, T, N → $NTpNq$, on a topology, which in such terms would seem Cauchy.

However, more directly, the Lie algebra decomposition to two 3-form diagonals of opposite arms, one from each branch, tend towards the limit on their shared line, which is the asymptote of the two branch-arms. Intersection occurs at the center of the two asymptotes which is the part of symmetry on a hyperbolic plane. That is where the two asymptotes mirror one another at the intersection of their symmetry. The curve can be on both sides of (x) = 1/x on the vertical and horizontal axes.

. . . with indexes within a recursive and dependent context, in which case they are removed by by decomposition into theorems of their own syntax. I don't believe this is arguing however by larger systems containing smaller ones, because actual arithmetic type inference is what causes a real and sought decomposition, which is the purpose of the Lie algebra.

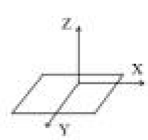
The algebraic structure of the Lie algebra can be identified with a group, G, as we've gone through: G → g. The group SO(3) for 3-form diagonal matrix decomposition. But SO(3) is a group representation at the Poincare Group which, as a representation in a system S, is a theory-check on G as a Hilbert space where H = G = g of the Lie algebra for Gödel's theorems. This link between symmetry and the factorization (or generalization to Lie algebra's final representation to a unique diagonal 3 x 3 matrix l of identity 1) in the Lie algebra with respect to passing through Gödel's theorems while a provisional functor is laid down, by observational necessity to look at the matter of how to proceed, is a rule-following that we do inevitably if we know about Gödel's theorems and maybe even if we don't, in which case a daemon, in the same that Maxwell's daemon functioned, could be working on that in the background with the provisional functor in a 'deep structure' following Chomsky's surface structure and deep structure, with a conventionalized rule, move-alpha. But with knowledge of the Gödel theorems, the mathematician working through the full mathematics of the Lie algebra would render a daemon moot, as it was rendered moot in a similarity in Maxwell's daemon.

The interesting part here is the possible duality of a daemon and its disappearance after an event, until we know what our provisional explanatory daemon really is.

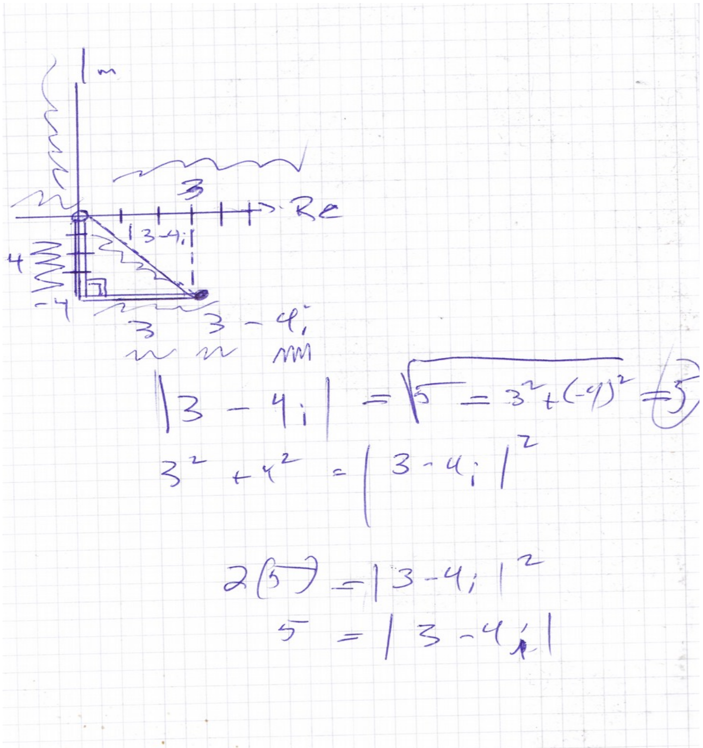
I'll group the whole matter into a posited a Lie Group lock-in theorems similar to the Bianchi identities. Because the Lie algebra is related to the Lie group by the property of multiplication group operations on operands -- factorization and symmetry-checks -- all Lie groups have an integral: a Lie algebra. In converse where a dimensionally finite Lie algebra is lopped over real or complex numbers, are mirrored but connected Lie groups that allow us to investigate the Lie groups **themselves in and within the terms of the Lie algebras. That is a great thing in itself. First on our list is that it** allows us to study dual-aspect as what I will call analytic complex numbers: a = x + iy u,. . ., b = x – iy u,...,

Dual-aspect theories of all types and dual-aspect-seeing of all sorts require analytic complex numbers of the form x + iy and x + iy.
This surface is a plane and its equation is set at z = 0

$z = 0$



I need to find the absolute value for a randomly chosen complex number on this surface, set it at 5, where Z is Im.



To be correct while simplifying things, the vector space here is an isomorphism (identity) if we consider that complex numbers can work as ordered pairs in a complex plane, qua real numbers same ability. Generalizing to a field F from multiplicative type inference, we can project a vector space of complex numbers over R. In any set of complex numbers C for real numbers x and y with multiplication x + iy, etc., woks for the same arithmetic type inference, in our case multiplication. That's why the plane above works with complex numbers in the same way it would work with finding the absolute value of a chosen real number on that surface.

In field F-extension we can reproduce in the same way as we derived the absolute value for a complex number on a plane: The extension of to a field from R to Q is done by Q(i sqrt 5) is the vector space for Q. We didn't notice that for every point of the x,y axes there is product of n on x axis and m on y-axis, respectively i = 1,n, j = 1,m. The logical (sub)-interval would be delta-x = (xn – x1)/n and delta-y = (ym – y1)/m. I'll call them analytic intervals. The furthest I will go with this is where it is important for the purposes of this paper, namely the Lie algebra and Goedel’s theorems:

<indent 1> The Overview Concept gave us: S is a repository for axioms that do not hold in proof in their original source systems (where they are nonetheless true), Gödel’s theorems still hold, but are not binding in a court of law where the full expression of modus ponens is required for **evidentiary purposes**. Thus the preservation of representation of the matrix l with identity is maintained, symmetry and factorization (or combined, inversion) is preserved, both necessary in evidentiary matters in constitutive mode, i.e. the court law, and Gödel’s theorems are applicable for TRU and PRF in any S from any source s in a court of law.

Take our analytic intervals. The ‘indexed’ on the arithmetic line by multiplicative type inference, from our discussions on symmetry-checks and factorization giving us the algebra for data type inference along the arithmetic line its Albian algebra the Lie algebra to the built group H = G = g, with sub-indexed analytic intervals, and we have a lot to look to investigate in <indent 1>.

Scalars are observer independent; they don’t change according to the position of the observer. The Lie algebra can allows a mathematician or person to do the algebra and derive a unique matrix, and matrixes are scalar. But working through the algebra and looking at its results are two different things. The MU sign u, a common feature of scalar fields, is a gauge or measure in makes the field appear differently to different observers.

We will look at the observations also in terms of continuous polynomials using functor algebra. That is already mathematically coherent. It is just not done yet.

This is the coordinate system that I have chosen as an observer. I have the right to choose any coordinate system from my frame of reference.

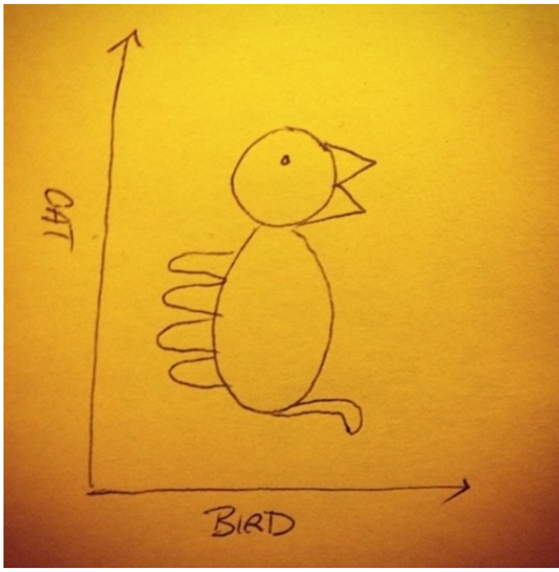
Maximally, and I think in fact, I, the observer O, carry Euclidean space in my pocket as I move around. This has no effect on the coordinate system that I am looking at.

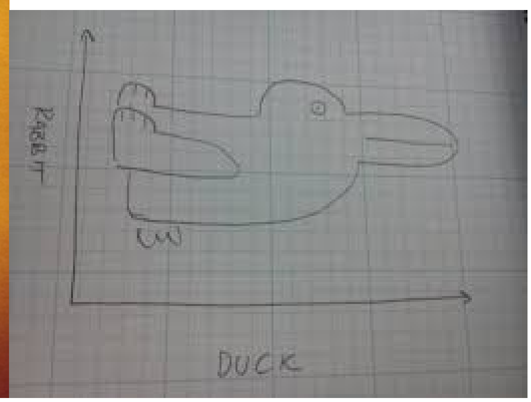
It is interesting and 'interesting' but natural consequence and fact that the Lie algebra is what allows us to investigate Lie groups, which means any groups, and that, upon investigation, with reference to my the freely chosen coordinate system from the frame of reference that I am making my choices, takes on further entertainment: I don't need to choose anything at all, my free-will is not affected by mathematical physics, I am pellucid and voluntary. Just because I am an observer doesn't mean that there even is a coordinate system or more to choose from!

That is where *decidability* becomes relevant from Turing to Gödel to Nash. Let's count how many blessings we have: scalars are in the representation of the Lie algebra by symmetry and factorization, to base identity 1 of a diagonal vector space of 3-form. Scalars are observer independent, although one wonders about that when in fact the mathematician actually has to go through the operations of building the Lie algebra representation by performing writing its algebra all the way to the Poincare Group, which *then* becomes abstract (a mathematical object) because, like it or not, it is a *Theory*-check to its identity (not generalization) to its Hilbert Space H. H = G = g.

The metric tensor at this level of topology is algebraically bilinear for the Lie matrix vector, the Killing vector field which is a vector algebra itself and preserves the axioms and theorems that define the distance of a Lie matrix, but independently of the fact that the distance is counted in form diagonal 3-form. So it by implication preserves 3-form. By preserving the distance, and by implication preserving the distance at 3-form, it preserves the axioms and theorems that made it 3-form with a distance over a scalar field. My opinion is that the Lie Group is a (the) Theory-check, as stated above. Choosing the coordinate system of my choice as observer O, as I move about new coordinate systems are created while remaining a set of linear functions of the of coordinate system. Very briefly, it occurs as r = x1, x2, x3, x4, x5, xn, where there is index j and xj = xj (x, y, z, . . .) = J = 1,. . .

This is me, O.
This is my coordinate system:





Courtesyhttp://www.blameitonthevoices.com/2014/06/mindblowing-animal-graphs.html

This is what I circle back to:

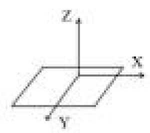
<indent 2> Lie Group lock-in theorems similar to the Bianchi identities. Because the Lie algebra is related to the Lie group by the property of multiplication group operations -- factorization and symmetry-checks -- all Lie groups have an integral: a Lie algebra. In converse where a dimensionally finite Lie algebra is lopped over real or complex numbers, are mirrored but connected Lie groups that allow us to investigate the Lie groups **themselves in and within the terms of the Lie algebras. That is a great thing in itself. First on our list is that it** allows us to study dual-aspect as what I will call analytic complex numbers: Za = x + iy u,. . ., Zb = x − iy u,...,

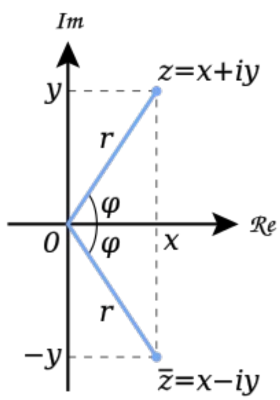
Dual-aspect theories of all types and dual-aspect-seeing of all sorts require analytic complex numbers of the form

Z-alpha = x + iy and Z-beta = x + iy

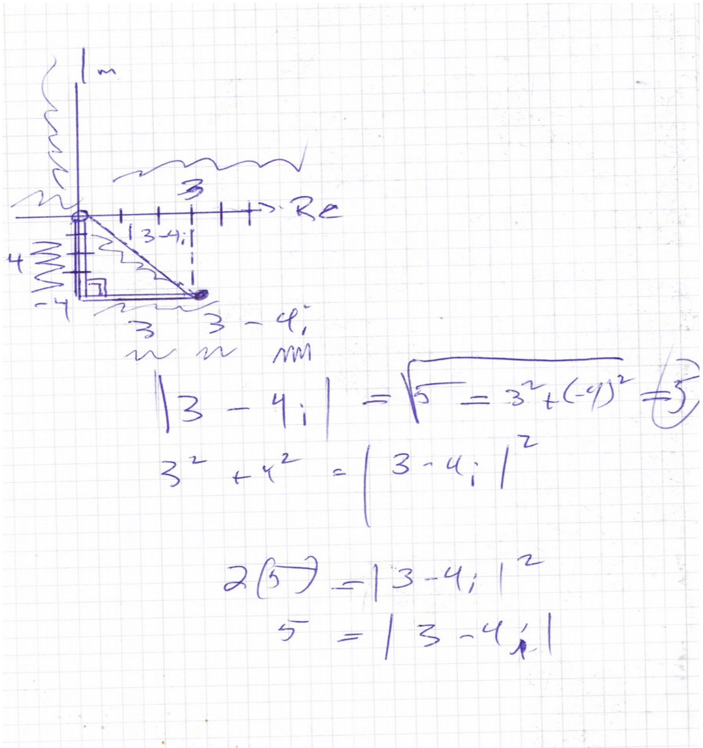
This surface is a plane and its equation is set at z = 0

$z = 0$





I need to find the absolute value for a randomly chosen complex number on this surface, set it at 5, where Z is Im.



We have representation of z and its conjugate Z of *z* and its conjugate Z in the complex plane. $z = x + yi$ is defined to be $x - yi$.

We've investigated in this brief (or this paper) many things, and we have some new knowledge. I am breaking off the paper inconclusively here; I have not time at the moment put the pieces in better order.

If the reader likes this little sing-song or clatter of a paper from an amateur, I beg his/her patience for when I have more time to move further in, and put the pieces in better order, as an epigram and in demonstration. Please pardon syntax ellipses in the prose, and any misspellings for the moment.