# FALSITIES IN CURRENT THEORIES

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WARNING:

What is herein is/are only end results. The majority of the proofs, references etc. are in my book or in individual papers (works) on the author's web page. My book is the first and finest indexed scientific reference in the world. It is not only cross-referenced, but crisscrossed. Web page can be found by entering on any search engine: collected schreiber

The author will pay a reward of $2,000.00 American per item number or its subdivision to the first person who can prove that any of the following beliefs in accepted current establishment theories are the truth as now promulgated within the intent, i.e., no speculated and unproven theories will be considered. The majorities are in physics, but four are in mathematics at the end. The results from the author's works will only be those of the utmost necessity and most of the proofs are self-evident.

Each item is numbered with some having a subdivision number as applicable. Many items are related to one another and are so referenced or double proofs etc.

The items following the number(s) as given in capital letter(s) are the responses (proofs) as needed to show such are science fiction, false, myths, non-existing, speculations, and lies by omission, by authorities' infallible decree(s) etc. as applicable. The symbol > means digits continue. The symbol < means digits end, exact.

**1: There are claimed to exist the following theories: Quantum Electro Dynamics, Quantum Mechanics, Quantum Chromo Dynamics, Quantum Computing etc.**
A. The Latin word quantum is defined as the SMALLEST unit, value, entity etc. The Latin word quanta is the plural of quantum.
B. There are only two recognized quantum entities, that of Planck's Constant, symbol h, and the singular unit electric charge, symbol e (normally for the electron with the rest of the applicable particles that have a unit charge understood).
C. Therefore, unless one is speaking or writing of h or e there are no other existing physical quanta, i.e., the American penny is a quantum and the dollar is a quanta, but that is not scientifically applicable or others of like nature. See **17:**.B.
D. There can be no quantum jump(s), quantized Bohr hydrogen atom orbit numbers, multiple (quanta) de Broglie waves ad nauseam of the electron as there is presently **NO quantum of length, area, volume, mass, and time and their existence is** <u>**denied.**</u>
E. There is no quantum (source of the gravitational pull) for the gravitational field effect as there is no quantum of mass. It does have a name but no proofs and is called a gravitron, with many variations depending on the author's fertile imagination.

**2: The speed of light is a constant. (Constant here and here on in, is not per the dictionaries that are very bad. Here it means under any conditions; fixed, unvarying etc.).**
A. It only has a maximum scalar value in free space. Its speed in/through any other medium can be faster or slower. Different light (ALL radiation!) frequencies can and do speed at different speeds through the same (identical) medium. What is IN space (mass and fields) is considered as an in toto medium, not space itself. See **17:**, **55:**, and **56:**.

**2A: The velocity of light is a constant.**
A. It does not and cannot exist. See **13. B**.

**3: The temperature of space is – (what ever).**
A. What is space is unknown and temperature requires a mass with a speed. No mass, no temperature, no speed, no temperature.
B. It is what is IN space that has a temperature; vast difference.

**4: Light, as a photon, (ALL radiation) is massless.**
A. False. It was proved by experiment in 1901 and duplicated by many others using other experiments that light exerts pressure, hence had **mechanical momentum**, i.e., kinetic energy.
B. Substituting this momentum's mechanical effect (kinetic energy as a solid mass) can just as easily prove some (but not all) of the Photoelectric Effect and the pressure effect.

**5: The speed of sound exists.**
A. False. The sound is promulgated through a medium as a spherical (normally) wave front (a mathematical/mechanical concept that has no intrinsic speed) and the sound itself is **behind this wave front** and does not move itself. Hence, it per se, has no speed.
B. The definition of a wave in physics is: A progressive disturbance propagated from point to point in a medium or space without progress or advance by the points themselves.
C. The correct statement is: - the apparent speed of sound -.
D. This holds true for surface (capillary) water (liquid) waves' speed.
E. The speed of sound is often referenced in terms of Mach. The effect as the Mach sound shock wave. Mach was not responsible for either, but such were just named after him.
F. The physics definition of a wave should be that shown less the words "or space". What is space and whether it is a medium is unknown. NO proof of any kind of any existence of an Aether (space having finite *parameters* and properties) = medium) to date. There are no agreed upon finite parameters and properties that have been **verbally** set forth for this Aether or for space either as far as that goes. Both are just a buzz word. See **25: B**.

**6: The centripetal force and acceleration and the centrifugal force exist.**
A. False. ALL correct definitions found in dictionaries say explicitly; imaginary forces. Each is equal and opposite and per vectors, such equal and opposite forces result in a zero magnitude. See **13: B**.
B. Any references to these should be (at least at the beginning) say imaginary etc.

**7: The Coriolis Force exists.**
A. False. It is imaginary and due to a frame of reference change. It is the APPARENT Coriolis Effect.
B. Newton's original translated from Latin of his first law of force and motion is: Every body preserves in its state of being at rest or of moving uniformly straight forward, except insofar as it is compelled to change its state by forces impressed.

C. Most textbooks and references have distorted it; one such example: Every body continues in its state of rest or of uniform motion in a straight line unless it is compelled to change that state by forces impressed on it. A straight line it is not as such is ambiguous, i.e., can be forward or backward, hence relative and not finite. His original other two laws have likewise been (sadly) reworked **depending on the author(s)**.

Example:
An artillery projectile fired (no minutiae) due north from the equator goes in a straight forward (no deviation to left or right) path, but it curves downward. Its projected path (plotted) on (as, to) the Earth's surface frame of reference is a curve. There is NO (separate or new etc.) FORCE acting on said projectile to make its, per se, path curved, i.e., the projectile itself is being acted on by this Coriolis Force. For a projectile fired from either pole, the result is obvious.

Ditto for tornadoes, hurricanes, typhoons, cyclones, draining water ad nauseam.  That rotation is the vector resultant of the rotation of the Earth's surface and what is in contact with it (friction) on the moving masses trying to go straight forward, hence, the *resultant* is a "curve" producing a rotation of the masses etc., not any new force. It is still the resulting Coriolis Effect. See **13: B**.

**8: The propagation speed of the gravitational field effect is at the speed of light.**
A. Myth. It has never been measured.
B. No fundamental and/or second principles theory with equations etc. to pre-calculate same
C. If it was, the bending of light by a mass would be many times greater.
D. Laplace (1749-1827) and Van Flandern (1992) both showed from visual measured examination (Moon) that if it has any such speed, it is millions (Laplace) and billions (Van Flandern) faster than the speed of light.

**9: The propagation speed of the electric OR (that is not and) magnetic field are at the speed of light.**
A. Myth. Their linear propagation speed has ever been independently measured.
B. No current establishment theory with equations etc. per **8:** to pre-calculate same.
C. Don't quote Maxwell et al as that is the speculated combined field, i.e., only a model that does give some correct results but totally fails in other applications. This will be covered later in detail.

**10: Planck's Constant, symbol h, can only be found by or from experiment.**
A. False. It can be calculated using some of the physical constants. Mass of the proton or the electron times their Compton Wavelength times the speed of light. For the electron: 9.1093826 > x $10^{-31}$ x 2.4263102 > x $10^{-12}$ x 2.99792458 < x $10^8$ = 6.6260693 > x $10^{-34}$ J . s.
B. The physical dimension for h are: $h = M\text{-}L^2\text{-}T^{-1}$. And what is $L^2$? AREA.
And that means when this equation is read or written out properly: Planck's Constant is some (a) mass moving through or *creating some area* during one second of elapsed (clock) time.

**11: Zero-point Energy exists.**
A. NO. Per Max Planck, the originator of ZPE, required a value of Planck's Constant less than a whole number. See **12**: D. No experiment has shown h to be any fractional value, and never will. See at end of items comments.
B. Some claim the Casimir Force is a result of ZPE. There are even claims it has been detected and measured. False.
The van de Waals' force is many times greater and the gravitational pull of the moving parts of the apparatus are likewise, for all purposes, improbable to compute or deduct from the effect. Simply, the Casimir Force if it existed cannot be extracted from the background "noise".

**12: - virtual – anything physical (existence) is real.**
A. False. The physical scientific dictionary meaning of this word is: noting an optical image, formed by the apparent convergence of rays geometrically, but not actually, prolonged, as the image formed by a mirror (opposed to real). **7:** A., **13:**A., **20:**C., and **29:**B. again, déjà vu.

B. Note the key words; apparent, opposed to real.

C. What is reality is that this word as now incorrectly used by most, should be either literally or figuratively as applicable.

D. As to ZPE, one of its now additional claimed sources is: virtual pairs of particles formed in (out of) space etc. ad nauseam. From nothing comes nothing. **3:** A. and **5:** F. apply.

## 13: That mass increases with speed.

A. NO. It is the APPARENT MEASURED mass increases with **velocity**. Apparent is not real.

B. Generically (no minutiae), velocity are typically just two lines of a finite length, one of whose ends each touch at a single point, drawn on a piece of paper each labeled (named) velocity. The mathematical resultant has magnitude (scalar) and finite direction and that line is then correctly labeled (named) speed, i.e., scalar.

C. It was W. Kaufmann in 1901 that first proposed and proved it experimentally, not Einstein.

D. See **39:** for full explanation.

## 14: Ernst Mach postulated Mach's Principle.

A. No. It was Einstein who coined this and said it was the biggest/greatest mistake in his life (ended up with the Cosmological Constant) etc.

B. Mach postulated Mach's *Postulates* on inertia etc.

It is unfortunate the an extremely large number of supposedly peer reviewed papers permit the author's to have Mach's Principle when they mean Mach's Postulates. The problem is that the peers do not know the distinction either. And worst of all, the author has informed many editors of this fact and they still will not correct this mistake in papers so submitted to them. One editor's excuse; it might upset the author ad nauseam.

## 15: Accelerating masses (as one source of) radiate/produce electromagnetic radiation (light).

A. False. Exactly the opposite; decelerating only etc.

B. This is Bremsstrahlung or also known as the Second Order Doppler effect. (1) Proved by Ives and Stilwell in 1938.

C. If accelerating masses radiated, then they could not be accelerated as they would dissipate (some, if so; what fraction, where are the equations, experimental proofs etc. or all of?) their energy causing and permitting the said acceleration.

D. Any particle charged or no charge (neutral) will not radiate when its speed is constant (Newton's Law #1) and will radiate when its speed decreases, i.e., decelerates. Its *mechanical* kinetic energy loss is equal to the energy of the produced radiation.

E. The law of the conservation of mass-energy cannot be violated, ergo, SUM = PARTS. See **22:**

**16**: **That electromagnetic radiation is an electric-magnetic field per Maxwell's Equations - for electromagnetism etc. (as in current textbooks and not of a historical nature)**

A. The equations normally shown presently are *not his* but are the yet further updated Heaviside-Hertz Equations and none are Maxwell's originals per se. Furthermore, there are now 6 of them and not the normal four, sometimes a fifth is referred to, as now shown.

## 17: The Maxwell Equation (implied or is specifically so stated) for the speed of light is:

$$c = \sqrt{\frac{1}{\mu_o \varepsilon_o}} = 2.99792458 < x\ 10^8 \text{ meters per second.}$$

A. False. Maxwell worked in the gcs (until changed to cgs) system and abhorred the MKSA system. That is like crediting that God exists to Madolyn O'Hare (noted American atheist.).

B. It does not give the speed of light as it only gives the identical numerical value. From **23:** A. also, the answer, a RATIO, is just a number, nothing else. Its digits are the numerical value for the speed of light; BUT it is also the identical numerical value for the wavelength of a one cyc/sec frequency of said electromagnetic wave. And to carry this to reductio ad absurdum, it is also the number of pennies (a penny is a quantum) in $299,792,458 < (American dollars) or a quanta for this as its power(s) is $10^8$, see **1:**.

C. It is sometimes, at least one physics textbook author knew it was not such as Maxwell's says; - attributed to Maxwell. Half an insult. Where it came from is apparently unknown.

D. Minkowski postulated and apparently proved that the speed of light was just a ratio. Hence, this equation proves Minkowski, that is, when MKSA in used. See **26:** and **56:** for continuation.

### 18: Light (ALL radiation) is an electromagnetic wave.

A. False. No proofs of such as Maxwell et al only set up a model that gave an explanation for some of the parameters and properties of radiation. It failed for many other properties per **28:**.

B. When light is ***being produced***, it is effected by an exterior magnetic field or gravitational field.

C. ***Once produced*** it is not effected by any external electric or magnetic field. It is effected by a strong gravitational field, bending (gravitational lensing etc.) a right angle effect ONLY. Neither is it effected by itself.

### 19: Light (once produced understood) can be effected in a linear direction by a gravitational field.

A. False. There is/are no theory or supporting equations to show that this can happen.

B. No known FORCE can speed it up or slow it down in the linear direction, especially gravity.

### 20: Light waves can cancel and reinforce one another.

A. False. No wave can cancel another per. **18:** C. and cancel or reinforce itself, i.e. diffraction patterns etc.

B. IF it should cancel (go read a dictionary) itself, it would cease to exist.

C. It is the APPARENT [cancellation/reinforcing] effect and is not real.

D. The usage of the words cancel and reinforce were bad words to start with or the effect seen by the human eye or on what ever. The better words would be the apparent enhancement and apparent diminishment.

E. For those who wish to argue that sound (effect on the human ear) can be nullified by phase shifting, that is true, but it is itself not doing said canceling or reinforcing. That is done normally by secondary electronic means and is so noted.

F. For standing sound waves (like in xylophone resonator tubes) or radiation waves (Lecher wire experiment) there are null and maximum points along the wave, Hence, a sound detector placed at the null point will detect no sound or any device placed at the null point in the Lecher wire experiment will not detect any output (current).

### 21: Light and mass have a dual nature and as normally written mass OR waves.

A. False. Light and mass are co-nature not one OR the other.

B. From **4.** light can be both mass and of a wave nature.

C. Mass has associated with it at all times its de Broglie wave that makes it co-nature.

D. No single (one) experiment can show both at the same time for either.

### 22: That orbiting electrons fall(ing) from higher energy to a lower energy, lose energy resulting in the production of light.

A. Impossible and hence false.

B. That energy is the kinetic energy of the electron that must lose this energy. See **15:**.

C. The change in kinetic energy is given by the equation; $k = \dfrac{mv^2}{r}$. An electron in a further out orbit number has LESS energy than that of an inner orbit number as its orbital speed decreases with larger orbit numbers.

D. Simply, the electron going to a further out orbit number loses energy (quantum jumping outwards), decelerates, and produces light. An electron falling in GAINS energy, accelerates, due to the pull of the electric field between the nucleus and the orbiting electron.

E. This is identical to claiming that a cannon firing a projectile upward gains energy etc. NO. The projectile loses energy (radiates, but that is for another day) going up and it gains energy when it falls back, but in this case (as this illustration) it is gravity that is the effective source of the field. See **28:** C.

**23**: **In the gcs system (then), the ratio of the electro magnetic unit (e.m.u.) to the electro static unit (e.s.u.) as was found from an experiment by Weber and Kohlrausch in 1856 was the numerical value (within experimental error) for the speed of light**.
A. False. Same reasons and results as given in **17.** See **26:**. for continuation.

So, **17:** and **23:** are often given as proofs for the speed of light that are false. And until proven otherwise, Minkowski is correct in the gcs/cgs system likewise. So for **17:** and **23:** and for all other current establishment theories, there is/are no fundamental (first principles) theory, hence proofs, that the speed of light can be pre-calculated (all are post, not ex post, facto) AND it is in all probability just a ratio, i.e., dimensionless.

**24: Electromagnetic radiation has no frequency limits**.
A. There cannot be any frequency below one cyc/sec per h and Einstein's Equation for the transformation of mass to energy and vice versa.
B. No frequency below 1 cyc/sec has ever been *generated by humans* and detected. The maximum frequency produced was by/from the decay of the Eta pion; appx. value $6 \times 10^{22}$ cyc/sec. (No proof, but I believe this is/was a calculated value and was not and probably cannot be measured. Advise if I am in error [no reward] with the experiment used etc.)
C. The proton-antiproton collision does not produce (the false and so called annihilation) any direct electromagnetic radiation. Furthermore, the electron-positron annihilation has a cut-off collision speed LIMIT at about 210 MeV, i.e., maximum produced frequency. This is about $5 \times 10^{22}$ cyc/sec. No guarantee and no reward if this value is incorrect.

**25: The Newtonian Constant of Gravitation (G) and the permeability (symbol $\mu_o$) and permittivity (symbol $\varepsilon_o$) of vacuum (P and P of V) are entities, i.e., exist.**
A. They are all a Constant of Proportionality (k), just a number, parts of a ratio. The P and P of V does not exist in the cgs system. They are used to convert/transform the MKSA system from the cgs singular system, into the multiple valued MKSA system. (Do not confuse the name and usage or the assigned symbols, $\mu$ and $\varepsilon$, of these two words that are some parameters and properties of magnetic or electric entities.)
B. The P and P of V as defined: From Lemer & Trigg, *Encyclopedia of Physics*: After defining a linear response to a dielectric where epsilon is the dielectric function and sigma is the conductivity of the dielectric the article states: "Analogously one can define a complex magnetic permeability (mu) related to **B** and **H**." Under Ferromagnetism the authors state: The magnetic field strength is **said to** polarize the vacuum and **create** a magnetic flux density the magnitude **B** = $\mu_o$**H**, where $\mu_o$ is the permeability of the vacuum, **a concept of convenience** is establishing the SI units of **B** and **H**. [SI is now BIPM]. The dictionary definition of permittivity is **a ratio**: "the

ability of a dielectric to store electrical potential energy under the influence of an electric field measured by the ratio of the capacitance of a condenser with the material as dielectric to its capacitance with vacuum as dielectric" - - therefore **just a number without dimensions**. (bold is my added). Therefore, they are just numbers (ALL ratios are just numbers) and **you cannot legitimately** add any physical dimensions **or names** to them to create entities any more than you can to any other numbers. Hence, giving space those current nonexistent **parameters and properties**. An extremely few scientists know otherwise, but are in a minority, unfortunately and are not heeded.

C. The P and P of V were *dispensed with* by the usage of the Heaviside-Lorentz Units that set them to the unit value of 1. (You can research [verify] this on the web.)

D. The author can show how to totally dispense with and eliminate G and. the P and P of V.

For G to the *Mass Gravity System* as the current system is the *Mass Energy System* (per Einstein [actually Newton] mass is energy etc.). In Newton's Equation replace the right numerator with:

$$F = \frac{(n)2.583 > \text{x } 10^{-4} \text{ x } (n)2.583 > \text{x } 10^{-4}}{r^2}$$ where n is in grams and r is in cm, and the answer is

in grams (dyne effect). For answer in MKSA replace the values after (n) with $8.168 > \text{x } 10^{-6}$ for each and (n) is in kg and r is in meters and answer is in kilograms, (Newtons effect). G gone and **never should have come into existence in the first place**. The <u>**singular force**</u> for any mass may be *pre-calculated* and those values inserted directly into the equation:

$$F = \frac{M_1 \text{ x } M_2}{r^2}$$ That is substitute for (n) the a.m.u. mass of the proton and then the electron

that gives their singular force effect of gravity as $2.3529 > \text{x } 10^{-34}$ and $4.2891 > \text{x } 10^{-31}$ respectfully. For one gram that value is $2.583 > \text{x } 10^{-4}$.

Then insert those two values with the r for the hydrogen atom at its ground state and you will get the identical answer using Newton's Equation. Then they can be used in other equations when the other masses are pre-calculated etc. That, for your information, is the **second system** that operates in the Universe, the Mass Gravity System and requires no G.

**G is an artifact, is not an entity and is nothing more or less than a constant of proportionality, just a number without dimensions.**

Contrary to current beliefs, there is/was a **singular force** of gravity for a mass. It is the value $2.583 > \text{x } 10^{-4}$ dynes/gram mass (Energy). There already was, but no one would admit to it. Only <u>**one mass**</u> is/was needed in the gee or the escape/terminal speed equations. Why is the value of the second mass that is being acted upon by the first for the gee equation or the second mass escaping/terminating for those equations *immaterial*, i.e., from an electron to a ? has no effect on the end resultant? That is, according to current theory. But the escape speed calculation *collapses*, whereas the terminal speed (end resultant) calculation does not. Hint: - all small masses fall at the same apparent rate etc. How small is small? When does small become (too) big and that **collapse** occurs?

Newton's equations for gravity effects are technically the weight and not the mass(es). Mass is NOT weight! See **30:** D. And all gravitational pull force effects equations are for theoretical purposes (i.e., per theory) for *spheres only*. **See 11:** B.

**26:** (**17:** and **23:** continued) The MKSA can easily be converted back to the cgs singular system equivalent. This singular e.m.u./e.s.u ratio to digits shown, is then in MKSA:

$$\frac{4.553687899 \text{ x } 10^{-6}}{1.518946784 \text{ x } 10^{-14}} = 2.99792458 \text{ x } 10^8$$ The upper value is the e.m.u. and the lower value is the e.s.u. (singular [quantum] charge of the electron). Hence, the old MKSA equation for the force of charges is then after the permittivity of vacuum correction eliminated:

$$F = \frac{(n)1.518946 > \text{x } 10^{-14} \text{ x } (n)1.518946 > \text{x } 10^{-14}}{r^2}$$ Where n is the number of charges, r is in meters and the answer effect is in kilograms (Newtons effect) directly.

The F in all of these equations is actually the static force. To find the EFFECT requires a second step using F = ma. Warning: The gee equation only gives the effect on the second mass by the first larger to another equal mass or smaller mass.
The escape/terminal speed equation only gives the first larger as the PRIMARY mass to another that is escaping whose mass is?. For the terminal speed it makes no difference which is which. The two should be separated and not combined as one.

Note that in all textbooks etc. that the numerical values for the charge I am showing are given only a symbol, Q and C respectfully (a mnemonic equation) so that when their numerical values are actually inserted (constants) the correct equation is as I have shown.

**G and the P and P of V** *as applicable* **have been eliminated or dispensed with and were not needed in the first place**.

**27: That the effect for gravity can be a push force.**
A. The only real proof that the effect can be a push is for **two spheres masses only** as many used for this proof, but it can just as easily also show the pull force effect for gravity.
B. The addition of a third or more mass in this system makes it an impossibility.
C. Push Gravity requires some shielding or the what ever is absorbed and pushes the mass away.
(1) Therefore, excluding spheres, such push depends on the *shape and position* of the masses.
(2) Two thin disks parallel will then have less push than those same disks lying in the same plane. (3) None of the Push Gravity theories say exactly what the function of the thickness, linear, geometrically etc. of the mass, i.e., what fraction of the what ever gets absorbed to give the push.
D. None of its proponents have any equations or supporting calculations as such is then all verbiage.
E. The author has the only actual mechanical calculations done for this using three masses and shows the system is totally unstable, i.e., unworkable.

**28: The electron ejection delay time (from light hitting to ejection of electron from target into space, varies even for close frequencies from different sources and even for one single frequency) can be accounted for under current Photoelectric Theory, e.g., from any current ACCEPTED establishment light theory effect.**
A. NO. There is no provision for this known effect. It is not instantaneous as many references so state (a falsity). Other references imply its existence, albeit indirectly, (usually just one, sometimes two, lines), but no explanation.
B. It is a **total failure** from the Maxwell Equations and cannot be explained by them.
C. Einstein formulated an equation (A21) that gave (gives) the emission/production time for line spectra due to quantum orbit(s) jumping of the orbiting electron(s); finite WAVETRAIN length and finite creation/production time, and energy. $A21 = \frac{1}{\tau} = \frac{8\pi^2 v^2 e^2}{mc^3} f$ .

The constant f is defined by concepts which have no place in the quantum theory, at any rate so far as this present discussion has gone. Similarly, the concept of the **lifetime** of an excited state has no place in classical theory. Two close frequencies from different (quantum) jumps can have their production time, hence wavetrain length many times the other. This equation's results were proved by experiments.

D. Furthermore, current experiments have shown this wavetrain emission is random in nature (another different lifetime, i.e., from when the source is activated until it then follows Einstein's Equation) or there is no finite delay time itself from the time said element is activated until it emits said wavetrain; and that is a finite time. Einstein's equation and the experimental proofs are not accepted by the current establishment, hence is not qualified to collect my reward if quoted as proof. Furthermore it application(s) is/are incomplete, but the start.

E. Therefore, per **18:, 19:** A., **20:**, and **24:** shows that Maxwell et al does not have any proofs that the results are true, are lacking in many respects, and hence is just a partially working model.


**29: Excluding the surface, whatever that is, of charged particles or ionized elements etc., there is a positively charged surface on a physical area, i.e., on say a pith ball or whatever**.
A. What is misnamed as a positively charged surface is only a lesser quantity or lack of electrons of the material composing this surface. Or, that called; by inductance, i.e., induced. Simply acts AS IF there were a real positive charge existing.
B. Again, word apparent is missing.


**30: The one (standard) kilogram is a mass.**
A. It is not now and never has been a KNOWN finite mass. It is the standard of weight.
B. The platinum alloy reference one kept at BIPM with duplicates elsewhere (one shown for the one in the USA normally with a picture of same in all American physics textbooks etc.) is a weight.
C. The word mass was coined by Sir I. Newton to distinguish the fixed quantity of a substance (matter) from its measured weight that constantly varies anywhere on the surface of the Earth (for simplicity).
D. Weight is the comparison between ANY two masses or their gravitational attraction, gee equation covers, RATIO upon one another. There is no such thing as a singular weight. See next to last sentences for **25:** D.
E. At the present time there is no standard of a physical energy mass (and has no name or symbol either) like the kilogram weight. The energy mass of the electron and proton have been measured, but not any combined **finite energy mass**, not weight!
 **30A:** the BIPM value for the physical constants gives the proton('s) mass.
A. False. It is the weight (and wrong at that) for a (one) proton.
B. The value shown is the **decreed** weight (derived from the gram atomic WEIGHT of same) for a carbon atomic number 6, isotope 12, atom divided into 6 parts and that part is called the mass of the proton. (1) It cannot be substituted in Einstein's Equation to find the energy released when it is transformed to energy. Too large. (2)
The mass of the proton that will work in Einstein's Equation is called the atomic mass unit (a.m.u.) and its value is smaller and is the energy mass (Energy Mass System) scalar value.
C. The mass of the electron is correct as shown. Therefore, the "ratio" of the **mass** of the proton to the **mass** of the electron is not that 1836+ value as normally given and used, but is the a.m.u./mass electron that gives 1822.888 to value shown.
D. It is possible to show that its value using other BIPM values from other end results there from is closer to 1822.5+ digits in accuracy.
Note; a ratio can have only one value, ergo, excluding c, some of the BIPM values MUST NOT be as accurate as claimed as there *cannot be two different values* for one ratio, i.e., 1822.8 and 1822.5. Hence, is accurate *only to four digits* .

**31: Black Holes were postulated/derived (implied) from the Theory of Relativity, i.e., Einstein indirectly gets the credit for the bending of light by a mass.**

A. False. (1) It was Newton in 1704 who first postulated that light could be bent by a mass. (2) John Michell, English (1724-1793) was the first one that started the Black Hole ball rolling, so to speak. In 1784 realized that it would be theoretically possible for gravity to be so overwhelmingly strong that nothing -- not even light traveling at 186,000 miles a second -- could escape. To generate such gravity, an object would have to be very massive and *unimaginably dense*. At the time, the necessary conditions for "dark stars" (as Michell called them) seemed physically impossible. His ideas were published by the French mathematician and philosopher Pierre Simon Laplace in two successive editions of an astronomy guide, but were dropped from the third edition. They were not resurrected until 1980. (3) Schwarzschlild (1873-1916) after reading Einstein's early Relativity works, then in 1916 ***applied them*** to Newton's escape/terminal speed equation based on the mechanical effect to show when **a <u>mass</u>** could not escape permanently from another larger mass, i.e., its speed had to be greater than the calculated value. Simply, at what radius was such that the second mass could **<u>not be accelerated</u>** and thereby escape **at all**? His equation result is called the Schwarzschild Radius. His equation is badly flawed (impossible to start with) and does not support the creation, hence any existence of a Black Hole.

B. The CORRECT escape/terminal equation is: $M_v = \sqrt{\dfrac{2GM}{R}}$ .What Schwarzschild did was to insert the maximum known speed, that **of** light, in the left side or it made **light itself** leaving said mass. Therefore: the correct left side should be:

$M_{v\,=\,c} = \sqrt{\dfrac{2GM}{R}}$ that is an automatic impossibility to start with. See **19:**.

C. Even if the equation were true, Schwarzschild showed that the MINIMUM size of such a mass would be about 3-4 times the mass of our Sun. Reading about smaller Black Holes in various publications by many well known, even Nobel recipients, scientists is simply a myth, falsity, science fiction etc. and violates the results (limits of existence based on the Theory of Relativity) of the basic equation in the first place.

**ALL LIES** as to Schwarzschild: Schwarzschild's 1916 paper was AGAINST Relativity and he did not, no one knows who did, formulate that equation and radius and that 3-4 Suns masses ad nauseam. His paper can be read on the web and his real equation at:
www.geocities.com/theometria/schwarzschild.pdf   Concurrently J. Droste wrote an almost identical paper to Schwarzsdchild's with the identical conclusion. Double proofs.

D. They have all ignored and pretended to forget the *proven existence* of the gee equation. Remember my question in **25:** D.? How small is small; and the escape speed equation collapses?

E. IF light could be bent by a strong gravitational field, it could not be bent TO 90 degrees in the first place. The Lorentz Operator or Factor prevents this. Hence it cannot be bent into a circle. Therefore, the original definition and its modified current accepted one is an impossibility. See **39:** that is also applicable or that cosine effect etc.

**31A: A Black Hole has a Surface Horizon.**

A. Where it starts and how thick/deep it is, is never given.

B. Simply, solve the equation for any mass (use rounded off values for simplicity) to find R. Then increase R by any additional value for length, say one Planck Length and solve for the speed. It is UNDER the speed of light for **any** smaller added value. Hence the Surface Horizon is actually the surface per se and does not extend out in space away from same.

C. Using the gee equation will give the identical result as the gee is that for c **at/on** the surface and drops BELOW c when the R is increased by ANY additional amount away from the center of the Black Hole, i.e., **normal gravity takes over**.

**31B: When a mass is too large it will cause a gravitational collapse and form a Black Hole.**
A. False. No mass can be such that the force of gravity will cause any collapse as the repulsive force of the charged nuclei(us) therein is too great to permit them to even touch one another.
B. Simple calculations will show that to force two protons' surface into a *touching position* takes a pressure of about 2.9 x $10^{28}$ gm/cm$^2$ or $10^{25}$ kg/cm$^2$.
AND that mass's pressure must come from the mass **above** those two touching protons, i.e., a neutral linear stack of mass on each of the protons extending into space.
These are just a few items of what is wrong with a Black Hole or how can they be created in the first place, their miracle properties etc.; that is unless by totally unsupported verbiage.

**32: Mass has no scalar limits.**
A. False. It is only necessary to substitute one h (that E in Einstein's Equation are the TOTAL number (n) of h's, i.e., nh = E = mc$^2$) that gives: m $= \dfrac{h}{c^2}$ . Substituting gives:
m  7.37249 > x $10^{-51}$ kg. From Planck's Equation that mass when transformed to energy has one h and its frequency is one cyc/sec and its wavelength is 2.99792458 < x $10^8$ meters.
B. It is also the mass of a particle divided by its frequency when it is transformed to radiation. For the electron: 9.10938 > x $10^{-31}$ ÷ 1.235589 > x $10^{20}$ giving the previous value as shown.
C. This is the quantum of mass, the source of mass (per B.) and gravity.
D. From **25:** it then follows **automatically** that the SINGULAR gravitational quantum of force is 1.9043 > x $10^{-51}$ dynes static (x $10^{-46}$ Newtons static) as the quantum of source in the Mass Gravity System. The real or true Gravitron.

Further proofs:  Singular force of gravity for the electron divided by its frequency when its rest mass is transformed to energy gives the identical result in D.

**33: The Schrödinger psi (Ψ)  waves are waves per se.**
A. No. What Schrödinger did was to devise the means to manipulate multiple de Broglie Waves.
B. They are not a wave as defined in physics as the de Broglie wave has no frequency.
C. It was therefore, misnamed and led all astray as to its true nature.

**34: Cold Fusion does not exist.**
A. False, It is exactly the opposite. (Word cold fusion coined 1989.)
B. Cockcroft and Walton used Cold Fusion to create the first element transmutations firing protons (relatively COLD) at the lighter elements to convert them to the heavier elements. Cold Alpha Particles (helium nucleus) were also used likewise.
C. The attempt to create heavier elements by colliding the heavier nuclei together is done by Cold Fusion likewise. It is so spelled out in peer reviewed papers, and so published etc.
D. Every experiment to create **helium** by thermofusion has failed. In the Sept. 1999 issue of *SCIENTIFIC AMERICAN* on page 78 lower right corner, is something of extreme interest. It is the first time this has appeared in any national media: CRITICISM: Fusion has never been achieved in the laboratory, and etc. That fusion was thermofusion as in the article. No one questioned it.
E. The Hydrogen-bomb was a thermofusion failure. NO, excess that is to account for the released energy, HELIUM. It works on the THIRD form of mass to energy process; FRAGMENTATION (mechanical at that!). [Radioactivity is the fourth means of the transformation of mass to energy.]

**35: Newton's Third Law of motion cannot be violated.**

 A. False. Newton's ORIGINAL Third Law is: Law 3: To any action there is always an opposite and equal reaction; in other words, the actions of two bodies upon each other are always equal and always opposite in direction. See **7:** B. This law is only for solid mass mechanical actions.

B. There is no recoil from the production of light. Anti-light (recoil effect) probably originated by Leonard B. Loeb and never proven. Actual source of this recoil postulate is unknown.

C. The Mössbauer Effect apparently violates this law as there is no equal and opposite reaction as the emitted radiation has no Doppler Effect, i.e., the nucleus does not recoil. Not violated to start with. He received the Nobel Prize for the wrong claimed reason.

D. From my works this is related to inertia or in order for one mass to recoil, its inertia must be overcome by the action of the second mass. The equation F = ma is actually the minimum amount of force required to *overcome* that mass's inertia (new concept and word; midpoint) and then it can move when there is an additional force! Corollary: Remember the Work Function for the Photoelectric Effect?


**36: Heisenberg based his Uncertainty Principle on a microscope.**

A. False. If there are any exceptions such is extremely rare as all current textbooks use a microscope illustration to show his HUP. .

B. He used the resolution of a spectroscope in his doctorial thesis that was then expanded into the final version of the HUP and its applications, i.e., electron cloud probabilities etc.

C. He almost failed his oral examination when he was asked to give the resolution of a microscope and could not, but was passed anyway.

**36A: The Heisenberg Uncertainty Principle has a direct connection to Planck's Constant.**

A. False. AND both this and **36:** has been shown to be false.


It can all be found in: *Absurdities in Modern Physics: A Solution* by Paul Marmet in CHAPTER 3. This is available on the web. A physical theory cannot be based on the OPERATION of some instrument. Heisenberg was in error and so is the microscope illustration (resolving power equation) as it is no longer applicable as with modern techniques, the examination of a portion of a wave can be used to extract useable information.


The parameters and properties of a specific scientific instrument cannot be used as a postulate for a *generic* theory. Other instruments can easily show that such is not applicable, and in fact, can destroy other theories, especially the Theory of Relativity.


The microscope and observing an electron is an absurdity in the first place. You cannot determine the electron's position and **momentum** simultaneously. Momentum requires the measurement of a movement, speed, between two points to be determined and you cannot determine its momentum when the electron is ":standing still" anymore than you can the kinetic energy of a mass standing still.


His famous equation (The author believes that most references or in its original form is) $\Delta t \times \Delta E \approx h$ but it is also shown (Marmet) as $\Delta t \times \Delta E = h$. It is not *approximately equal too* but it is h. The emission time for one cycle x the energy in one cycle = constant = h. That is what Planck's Equation says, i.e., when the emission (creation time) is one second, the single cycle has one h.
 When the emission time is cut in half, 2 cyc/sec, then each cycle has one h as two cycles are produced  that has twice the total energy etc., i.e., frequency, hence 2/2 = 1 or 2 x 0.5 = 1 etc. The *probability of its being h* is 100%.

**37: From the Heisenberg Uncertainty Principle that the orbiting electrons are in "clouds", i.e., probability positions.**
A. False. If that was so there could not be any Sommerfeld Fine Structure Constant and all of its applications (Coupling Constant etc.).
B. If the electron was in such a cloud, it would have varying speeds for each orbit number that

violates their angular acceleration and that equation $k = \dfrac{mv^2}{r}$ in **22: C.**


**38: Einstein was not first with $E = mc^2$.**
A. False. He was first.
B. Many others came close and could have or if their works were changed etc., especially Hasenöhrl (He acknowledges Hasenöhrl's contributions in his works by footnotes) and De Prietto.
**38A: $E = mc^2$ was in a 1905 paper by Einstein.**
A. False. It did not appear until his manuscript, circa 1911-1914 (first time actually published unknown) that had his previous (that falsely claimed 1905 one) corrected with its final form, $E = mc^2$ titled: *Manuscript on the Special Theory of Relativity*. AND that **specific format** made him the FIRST. (Manuscript available on the web.)
[For information purposes it was Newton who first proposed that matter and energy were interchangeable in his book *Optiks* (1704) as Query 30 reads, "Are not gross Bodies and Light convertible into one another. . . "]


**39: There is the Lorentz Transformation Equation.**
A. No. It is the Lorentz Operator or Factor whose symbol to left below and its equation is:

$$\beta = \sqrt{1 - \frac{v^2}{c^2}} = \sqrt{1 - \sin^2\Phi)} = \cos\Phi$$

B. When this is applied to mass, length, and time, the right side, then THAT equation is the what ever Lorentz Transformed/Transformation Equation.
C. The value under the bracket can be converted (as shown) to the cosine (vector function) of an angle. The author uses theta designating this angle. This is actually the real Doppler Effect equation for the effect of electric and magnetic fields on charged particles and other applications as applicable. In the following mass is shown so you can substitute what ever for the M for any other entity etc., but such must follow the given relationships, i.e., for length it is contraction (shrinks) etc.

$$M_{apparent} = \frac{M_{actual}}{\cos\Phi}$$

As an illustration for mass, assume the measured (apparent) mass of an electron moving through an electric or magnetic field is approximately $11.24 \times 10^{-31}$ kg.

Then $\cos\Phi = .810$ and $11.24 \times \cos\Phi = 9.1 > \times 10\text{-}31$ kg or the normal mass of the electron. $\cos\Phi = M_e \div M_{apparent}$ or the effective force of the field is $.810$ x perpendicular force or if effect is wanted, $M_e \div \cos\Phi = 11.24 \times 10^{-28}$ gm apparent measured mass. The end result is the same. The effective force is simply the vector force (cos) of the field *effect* or approaches 1 at slowest speed and *approaches 0* at maximum speed. It was this *measured value* that gave **the illusion** that the mass of the particle was increasing because it required increasing the field to keep its radius fixed, whereas it was only the *weakening* of the effect of the moving force fields that were taking place.

**40: The reciprocal of Avogadro's number is purely a coincidence that of the a.m.u. and vice versa.**
A. Wrong due to its being long removed (as far as I have read) from all current textbooks.
B. It is a direct resultant of how Avogadro's Number was defined, though only this author knows why.
C. However, you can read the connection in THE DISCOVERY OF SUBATOMIC PARTICLES, by S. Weinberg (has SUBATOMIC PARTICLES on book spine) pages 178-182.

**41: There is a Binary Number System.**
A. No. It is the binary symbols mathematical operator system.
B. Those O's and 1's (but any two different symbols or even physical objects will do) cannot be used to write any numbers or perform any mathematical operations in that system per se. They must be converted into another number system (bytes) and then that conversion is used (in computers as an example) to perform the mathematical calculations. The end results are then converted back into answers in the numbers of the number system desired.
C. There are an infinite number of number systems, bases. The most common is the Roman Decimal System also known as the (sic) Base 10 System.

**42: The axioms of arithmetic lay the foundation for the manipulation of numbers to perform ALL (needed) arithmetical operations.**
A. False. Those axioms ONLY result in that m = n or 2 = 2 etc. In all fairness, it also says that any number added to another or multiplied is independent on the sequence so that m x n = n x m etc. But, that was done by two other axioms and no proofs.
B. These axioms do not provide for SUBTRACTION or DIVISION.
C. They do not show or give WHY the answers are so; or why is 3 x 2 = 6 or 2 + 3 = 5?
D. Hence, they are incomplete and are no proof(s) as to the resulting answers so claimed by the mathematicians etc.
E. Division of zero by a number is simply PROHIBITED is the perfect example and *automatically gives lie* to their statement for ALL etc.
F. The results of mathematical operations for numbers are all done by (infallible) decree and there is absolutely no proofs that the results are true or correct

The author discovered why two numbers multiplied gives their answer. It was a result of a statement by J. Kepler on the effect of the ratio of masses for gravitational attraction. This is called the Kepler-Schreiber Law of Contribution. Its formula is: $a = \dfrac{b^2 c}{b + c} + \dfrac{bc^2}{b + c}$.

Multiplication in theory is therefore an endless process. However, the direct application to any two numbers gives what each contributes to the resulting answer. When each are the same, each contributes 50% of the answer.

There is no and never will be any formula for division.

**43: The Traveling Salesman Problem requires the multiplication of the number of cities visited in descending sequence to find all of the solutions to the shortest length, i.e., for 100 cities it then takes; 100 x 99 x 98 x 97 etc. calculations. For 100 cities it is about 9.3332621 > x $10^{157}$. Even for 30 cities it is about 2.65 > x $10^{32}$.**
A. False. From **41**: there is in these axioms that it makes no difference in which sequence the numbers are multiplied (m x n = n x m etc.), i.e., for simplicity 4 x 3 x 2 x 1 = 3 x 4 x 2 x 1 = 2 x 4 x 3 x 1 etc. so that 24 steps are not required for those number of cities (4) but only one step

(calculation) gives all of the *identical* results. Many of the combinations are identical or mirror images etc that further reduces the number of calculations.

B. The end result is: to find either the longest OR shortest routes (and all in between) where N is the number of cities only requires $2N^2$ calculations for either one or $4N^2$ for ALL of the possible routes.

C. For 100 cities it actually only takes 20,000 calculations for finding either all of the shortest routes (there are multiple results, hence plural) or all of the longest routes; 40,000 for all possibilities.

**44: The multi-body problem for gravity follows the Traveling Salesman Problem.**
A. False. Using Newton's Equation it only takes the sum of the number of bodies minus 1 for a single solution., i.e., for 5 bodies, 5+4+3+2= 14 steps.
B. Then applying F = ma to find their acceleration (vectors) and over some fixed period of time, to where they will be at the end of that time that takes 14 steps again. Then repeat the process.

However, the author has discovered that the effective Range for any source of force is limited by Planck's Constant required to overcome the inertia of the masses in question. For gravity the equation is: $M = r^2$ x k, where k = 1.980355 x $10^{-2}$ ($10^{-6}$ for the cgs system) for the MKSA system. Hence, two one gram masses have a LIMIT to attraction that is about 7.1 meters. When said masses are beyond this Range, there is no effect or they will not be attracted. It is also in another version to find R:  $R^2 = M$ x 5.049599 > x $10^7$ cm$^2$/gm = x 5.049599 > x $10^4$ m/kg.

This simplifies and gives the real solution(s) of the calculations that will not be given here.

**45: Speed is distance divided by time.**
A. False. It is length per time.
B. Distance is a point mathematics (geometry) term and is indefinite as any distance = any other distance.
C. In physics it is length that is finite having a start and an end "point".
D. It is not length divided by time as length and time are entities and whose symbols can only cancel one another in equations.
E. It is the *numerical values* of the entity that can be mathematically manipulated.
F. The correct equation is speed = length/ time where the / is the symbol for per, i.e., s = L/T.
It should be and sometimes is rarely, spoken and printed as speed is length per time.

Briefly, in the equation for time or mass, the equation is (6) T x (5) T = 30T not 30 $T^2$.  But for length, it is (n) L x (n) L = n x n $L^2$ or area. Ditto for area x L or (n) L x (n) L x (n) L = n x n x n $L^3$ that is volume. But, 30T/15T = 2 as the T's cancel so it is a ratio. (30)$L^3$/ (3) L2 = 10L. Hence s = (100) L/ (20) T = 5 L/T or as written cm or m per second as the T does not and cannot cancel the L or vice versa.

**46: All motion is relative. [It matters not which entity is moving with respect to the other.]**
A. False. Any one exception destroys this fundamental belief from thousands of years ago.
B. It makes a difference when the Michelson interferometer moves through a medium or space that results in no fringe shift (detection)  or the medium (space not proven yet) moving through the interferometer that results in the Fizeau aberration (coefficient) resulting in a fringe shift and is detectable.
 C: Simply the operator can measure and find the speed and direction of the moving medium and so compensate for his speed, if any, and direction.

From the author's works, one of the Laws of the Universe: All processes, actions, or effects are not necessarily reversible.

**47: Mass or light can move in an arc, circle or other such geometrical paths.**
A. False. Requires dialectical materialism or two or more separate facts that are opposites cannot both be true.
B. Fact 1: Newton's First Law of Motion requires a moving mass to go in a straight forward path. Fact 2: His Second Law states that when acted upon by an outside force, then it can undergo acceleration or deceleration or change is speed to a larger or smaller value once the acting force ceases. Fact 3: Pierre-Louis Moreau de Maupertius (1698-1759) set forth the concept of the Principal of Least Action. This was an off-shoot of P. Fermat (1601-1665) who had set forth the Principle of Least Time. These resulted in the discovery of Max Planck in 1900 of his Planck's Constant that is the *quantum* of action or energy and proved these two postulates. Fact 4: There is unquestioned the axiom in mathematics (geometry) that: The shortest distance (length in physics) between two separated points is a straight line. C. Therefore, a mass can only move in a segment or a jump that is a straight line and cannot go in an arc or such curved path as that takes **more energy** (work) but not more time and violates Fact 3, i.e., least energy in least time. Do not confuse this with the physical work effect that the path length and time involved is independent against the force that is an entirely different matter.

This is easily proved from the Bohr hydrogen atom and the Sommerfeld Fine Structure Constant, alpha and its reciprocal, $\alpha^{-1}$ that is better known as that magic number that is about 137. Under the Bohr calculations, the electron's path is a circle in theory, that when corrected by Sommerfeld is an ellipse (actually Newton) that makes no difference.

Divide the circumference or perimeter length by the diameter of the electron that is also its Compton Wavelength etc. into this path length as an ARC. The answer is 137.035 rounded off. But, the diameter of the electron etc. cannot be any such arc value, and only a straight line one, so that is the number of quantum JUMPS the electron is making to go in that orbital path due to the quantum of energy, h's required to do so. It is therefore unquestionable that the actual electron's path length to make one whole orbit is the number of jumps times the electron's diameter that is *shorter* in total length than the circle one. This path length then complies with all of the facts that were set forth with no exceptions and has the minimum required kinetic energy of motion in this segmented path.

The circle path's length ratio to the actual path is 1.04719 > that results in the equivalent of pi (perimeter divided by diameter) of that segmented path is 3. Hence, it would take that much *more energy* to keep the electron in that circle or ellipse. That is not found from the production of the line spectra etc.

The final illustration should clear up this matter. Around the segmented path's perimeter draw an inscribed and a circumscribed circle. Now insert a block of square wood that is the diameter of the electron. Moving this block in jumps of its length though it will just slide around, the outer apexes touching the outer circle and the inner apexes touching the inner circle describes the normal Bohr orbit circle and the inner apex describes the inner circle. However, the center of the square = center of the electron, is describing the real path length, i.e., move the block in jumps of its diameter and plot the center point's movement from jump to jump that is a segment = electron's diameter. This plot will be the segmented path's length and give the total number of jumps (including the last one that is *a calculated* fractional jump, or that 137+ number.

The final proofs with no calculations given means that as the orbit numbers go up in quantum jump values, 2, 3, 4 etc., the values change correspondently so that the electron's speed in n = 2 is half that of n = 1, the de Broglie wave wavelength doubles etc, $\alpha^{-1}$ doubles so the number of jumps per orbit doubles etc. The latter is easily proved when $\alpha^{-1}$ that is also the speed of light, c, divided by the orbital speed of the electron, a dimensionless ratio, or just a number.

**48: There is no limit to frequency numbers as such can go up in whole number multiples of 1.**
A. False. The equation $v = \nu \times \lambda$ contains only two entities that are length and time, whole numbers likewise. Frequency is a calculated (human concept) number count that is *dimensionless*.
B. Therefore, there are certain frequencies that do not exist as when based on the wavelength and L/T, fails in the equation.
C. The <u>total</u> *number* of existing or calculated if they could exist frequencies are thereby based on multiples of h and $\lambda$ not the other way around on $\nu$.

**49: The force of gravity prevents ocean water waves to exceed or close thereto 100 feet in height.**
A. False. Diligent research by the author has not found any equations or proofs to support this widely quoted belief. It is just one of those so called facts that get quoted with no support as to origin.
B. Ocean water waves over 100 feet in height (rogue waves) have been reported on numerous occasions, but the scientists would not believe such **unqualified** sources and wrote it off to exaggeration.
C. Personal observations by this author while in the US Navy and during Typhoon Louise of October 1945 witnessed normal ocean waves far exceeding 100 feet.
D. To make this short, new means by satellite radar to measure wave heights have shown so far for rogue waves many at least 100 feet in height. None for hurricanes or typhoons yet, but eventually they will be detected.

Typical scientists' reaction. Not one single one has now said specifically: We were wrong as we have now detected and measured ocean waves over 100 feet in height. We were too arrogant to believe those who did not have the perquisite scientific qualification to observe such waves in the past as existing and offer our apologies. Unthinkable and will probably not happen.

**50: Bohr discovered h/2$\pi$.**
A. False. It was by John Nicholson in 1911, He notified Bohr and Bohr was able to finalize his Bohr hydrogen atom as it was the key, angular momentum of the electron, that completed his works. He never gave Nicholson any credit either.
He received the Nobel Prize and Nicholson has been removed from all references and by implication (lie by omission), Bohr gets all the credit.

**51: Pi is 3.14159 continued to infinity.**
A. False. Pi at the present is only defined as the ratio of the (length understood) circumference of a circle to its diameter and in the Roman decimal system.
B. And that is only for plane geometry.
C. For spherical geometry pi is 2.
D. Furthermore it can never be proved to beyond the first few digits as it requires using the physical measurement for a length. With todays' precision, probably to at least 8 digits past the decimal. Above 9 not possible.

This is a perfect example of not making definitions generic to cover all possibilities. However, when segmented geometry is used i.e., polygons and especially irregular polygons, exactly what is a diameter, hence a radius is open to argument. The author has his version that gives the solution. The redefined pi can be and is in the physical Universe 3. Therefore the generic (covers ALL possibilities) definition of pi is: The ratio of the length of the perimeter to the length of the diameter with the diameter having the unity unit of length of or as 1 in whatever number base system being used.

So the author is not misunderstood, the accuracy to one part in 10,000 or to the fourth digit after the decimal (understood from here on in) can be done with pen and paper. Minutiae not given. Using a laser interferometer and a specially designed apparatus (no minutiae given) the accuracy can be to about the eighth digit past the decimal.

Though there are many mathematical means to calculate the numbers in pi and they all agree at least in theory, that does not mean that the digits past the $8^{th}$ are so once proved. They can only be finitely proved from physical methods.
However, the author will stipulate that in all probability the other digits past 8 are probably the correct digits for pi. Just don't claim that such are so by a decree.

Something close to the digits in pi can be found by dropping a needle on a special grid. That is by mechanical means. In all fairness, the apparatus must be rigged to give the first few digits in pi so it is not any proof of pi per se. It is the other way around.

**52: The Sun works on thermofusion using hydrogen in the core.**
A. False. If it does so, it is nearer the surface or not further down than 20% of the radius towards the center.
B. Thermofusion requires mass. Since for all practical purposes the Sun is a sphere, then one-half of the mass volume is located in the lower about 80% of the radius and the other half in the remainder 20% of the radius.
C. Assuming that the gravitational pressure and the temperature is such, then if fusion is occurring in the core that will be the combined pressure-ignition-temperature zone or the PITZ.
D. There has been found in the past years the smallest star that had about one-hundredth of the Sun's mass. Therefore its PITZ was vastly smaller, call it the minimum PITZ for thermofusion.
E. Therefore, this same minimum PITZ will be or can be located in that upper 20% with no problem as it has at least 20% of the total mass of the Sun (density varies with depth so this is a guess) or 20 times more mass than the smallest star.
F. Hence the hydrogen fusion zone is located nearer the surface and is in all probably, located not very far from the surface, maybe only 10% of the radius downwards, but in no case further than 20% downwards.
All thermofusion laboratory experiments on Earth have failed. There is no proof for thermofusion or hydrogen to helium for any excess energy as claimed proof. Cold Fusion exists and has been known for over 70 years. Cockcroft and Walton used cold fusion to create heavier elements from lighter elements. Presently heavier elements above atomic number 100 are created by the same process. Helium can be created in a piece of apparatus called a fusor that operates on 20-50 thousand volts (neon sign transformers) due to Cold Fusion. Not admitted or accepted by the establishment nor strangely, by the experimenters themselves.

The Sun works on cold fusion and the laws of probability and the process is in all of the layers from the surface down to near the core. Whether any is near the core is open to speculation, but if so, is probably the carbon-nitrogen/oxygen cycle.

So as not to be misunderstood, the other elements can likewise be created up to iron anywhere in the Sun's volume once elements whose atomic number is half or more than iron are created. It is only a matter of how much of which are created and where. Thermofusion works on a *temperature differential* and not on any particular high temperature and pressure requirement. The pressure only puts the nuclei closer together to increase the chances of Cold Fusion occurring.

**53: Einstein used the word, if not coined it as many claim or imply, the word photon.**
A. False. The word photon was coined by C. N. Lewis in 1926.
B. A correct dictionary will confirm.

It is therefore an impossibility that Einstein used this word prior to that and probably if he did, only much later.

**54: Einstein spoke or wrote nothing can exceed the speed of light.**
A. False. Nothing is a nothing to start with.
B. He said or wrote (sic); No communications through free space can exceed the speed of light.
C. He did not imply that this was true for any medium. Communications can exceed the speed of light, superluminal, in a medium, i.e., having a refractive index.

Experiments by Ruyon Wang et al using light pulses in a moving fiber optic cable showed this. Experiments by many others using a fixed coaxial cable that the propagated signal speed exceeded the speed of light in the cable.

Experiments by L. J. Wang et al using light pulses in a medium showed that the measured speed can exceed the speed of light by many factors.

Therefore, three different experiments showed that the measured speed of light depends on the speed in the medium and is therefore not a constant. It is only a constant when the light is through free space and for a one cyc/sec frequency, a very specialized case and therefore is not GENERIC.

**55: The speed of light can be pre-calculated from a fundamental (first principles) theory.**
A. False. There is/are no present theories that can predetermine the parameter (numerical value) of the speed of light.
B. All present claims put into same (built in) some parameter or property of light and then said that the speed of light was found.

C. As the illustration and proof, Maxwell's original equation was $v = \dfrac{1}{\sqrt{mD}}$ where $\mu$ is permeability and D is the dielectric constant requiring the usage of the speed of light to start with, hence is or was built into the equation.

See EPILOG for how the numerical value of the speed of light can be arbitrarily chosen. Doesn't need any fundamental what ever to start with.

**56: Atomic clocks keep whatever accuracy so claimed.**
A. False. The current claims are figures pulled out of thin air.
B. Violates Lord Kelvin's rules (never have been shown to be false) for measurement to wit:

#1: No measurements can be made unless the comparison measurement is equal to or **smaller** than the objective being measured, and any attempts to do so results in a change in both measurement(s) (answers), and must be compensated for.

#2: No answer is more accurate than the least accurate value used in the calculation.

C. Any Atomic Clock yo-yos all over the place constantly due **to constant changes in the weight of the source**, height changes due to the Earth's surface tides, people walking anywhere near them and on and on. They only have some *average* time-keeping that requires some 18.5 years to cycle through.

So, what is that claimed accuracy COMPARED TO ANOTHER ONE OF YET EQUAL TO or GREATER ACCURACY? How was the accuracy of those proved?

As the old sayings goes: A man with one watch knows the time, a man with two never. And a clock or watch that doesn't run at all is perfectly accurate twice a day.

But to be fair the Atomic Clocks in the geosynchronous satellites keep the best average time. Trying to use that is the problem.

The Atomic Clocks on Earth can be synchronized to within reason, but the scientists refuse to do so as doing such would destroy General Relativity that says it cannot be done, and that cannot be tolerated. So they all just wobble all over the place and are constantly being tweaked to keep some semblance of time-keeping to be useable. But how close are those persons to the clocks themselves!!!!!

**57: There exists space-time.**
A. Does not exist. No one knows what space or time is in the first place. Therefore, combining two unknowns cannot produce a known. From nothing comes nothing.
B. G. F. B. Riemann coined this word combination as; space – time (note gaps) meaning of or in space and time in his mirror image postulate on particles.
C. Minkowski borrowed this and though there is no proofs, used space-time (removed gaps) and created an imaginary entity. Then others took it up or some fourth dimension or whatever.
D. Lately some non compus mentis being lazy started using spacetime and this final bastardization is now appearing in scientific works.

**58: Gamma Rays per se can interact and produce a pair of particles; one electron and one positron.**
A. False
B. Radiation has no effect on other radiation.
C. The electron and positron are only observed when Gamma Rays are absorbed in a nucleus and then the positron and electron (pairs ONLY) are created therein.
D. Though it has not been done, Gamma Rays that have only one direction of polarization should produce only one of the two possibilities, but that is very doubtful, but not impossible.

These that have been so listed are but a fraction as there are many more.

**EPILOG:**

From **1:**, **10:**, **22:**, **32:**, and especially **28:** (as A21 takes all of them to be such) it is easily shown that the physical constants must be quantized. Rewrite the calculated Planck's Constant to $c = h/M_e\lambda_c$. Now c is a constant. The mass of the electron is a constant. Therefore, h must be constant and for c to be a constant, then its Compton wavelength CANNOT have **fractional values** and it too can only be in full whole number multiples of itself = QUANTUM JUMPS.

For the proton the Compton Wavelength for the a.m.u. is 1.33102 > x $10^{-15}$ m. Why this is important follows.

The quantum of time is 4.4077 > x $10^{-24}$ sec, from the time it takes light to go the minimum length and the quantum of length, 1.3310 > x $10^{-25}$ m (diameter of the proton) can likewise easily be proven, but not for here, i.e., the time it takes light to cross *through* the diameter of the proton. For information purposes, the author's theory and the proofs (equations and calculations there from) that the scalar values of the physical constants can be **predetermined** (calculated). It was the result from **10:** B. Therefore, the maximum permitted speed of light in free space can be **predetermined**, is UNIVERSAL, and it is a **ratio**. All of the physical constants **numerical values** are ARBITRARY and directly related to one another, e.g., the numerical value of the speed of light can be SET (using the arbitrarily chosen quantum of length and the quantum of time as the starting, any two of mass, length, and time required, values point) to anything from greater than 0 to a googol or googolplex or larger.

*There are no natural numerical values to the physical constants per se.* ALL RATIOS ARE FIXED as it is only in what number system they are so written for understanding by humans.

How many legs does a dog have if you call its tail a leg? 4. Calling the tail a leg does not make it one. So, take heed to those who believe in Push Gravity, the Aether, massless light ad nauseam.

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