**The role of the ballot is to vote for the debater who best proves the truth or falsity of the Resolution; the affirmative must prove it true and the negative must prove it false. Prefer:**

**A) Text: Five dictionaries define negate as to deny the truth of and affirm as to prove true which means the sole judge obligation is to vote on the resolution’s truth or falsity. Constitutivism outweighs because you don’t have the jurisdiction not to truth test. Jurisdiction is a meta constraint since every argument you make concedes the authority of the judge fulfilling their jurisdiction to vote aff if they affirm better and neg the contrary**

**B) Logic: Any counter role of the ballot collapses to truth testing because every property assumes truth of the property i.e. if I say, “I am awake” it is the same as “it is true that I am awake” which means they are also a question of truth claims because it’s inherent.**

**C) Ground: Any offense can function under truth testing whereas your specific role of the ballot excludes all strategies but yours. This is bad for education because me engaging in a debate I know nothing about doesn’t help anyone.**

**D) Truth Testing is a prerequisite to other role of the ballots because without truth we’re operating off of lies which is what fuels propaganda and oppression.**

**1** [**http://dictionary.reference.com/browse/negate**](http://dictionary.reference.com/browse/negate)**,** [**http://www.merriam-webster.com/dictionary/negate**](http://www.merriam-webster.com/dictionary/negate)**,** [**http://www.thefreedictionary.com/negate**](http://www.thefreedictionary.com/negate)**,** [**http://www.vocabulary.com/dictionary/negate**](http://www.vocabulary.com/dictionary/negate)**,** [**http://www.oxforddictionaries.com/definition/english/negate**](http://www.oxforddictionaries.com/definition/english/negate)

***2 Dictionary.com – maintain as true, Merriam Webster – to say that something is true, Vocabulary.com – to affirm something is to confirm that it is true, Oxford dictionaries – accept the validity of, Thefreedictionary – assert to be true***

**Moral skepticism is true:**

**1.  Free will doesn’t exist, this means morality doesn’t exist because it doesn’t make sense to say someone ought to have acted differently if they couldn’t.**

**a) Neuroscience proves we don’t have free will.**

**Stenger,** Victor. "Free Will Is an Illusion." The Huffington Post, HuffPost Science, 1 Aug. 20**12**, [www.huffpost.com/entry/free-will-is-an-illusion\_b\_1562533?guccounter=1&guce\_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce\_referrer\_sig=AQAAABGkWQhgoezVxE1J5Eg\_t\_6MTA09Dlur7r7S69XPyC18OV-6bd4lcOLSns-fKN5\_2kDLNupyxGpvAQDuvwtbo5Gx10reInWy6KCUaHpCHm9pfm33t9wsFp6KLqIiAcqr-SoMp8WRTa0uVFHh597oieGv6NQDtCx6k4ssydbYJ3vX](http://www.huffpost.com/entry/free-will-is-an-illusion_b_1562533?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAABGkWQhgoezVxE1J5Eg_t_6MTA09Dlur7r7S69XPyC18OV-6bd4lcOLSns-fKN5_2kDLNupyxGpvAQDuvwtbo5Gx10reInWy6KCUaHpCHm9pfm33t9wsFp6KLqIiAcqr-SoMp8WRTa0uVFHh597oieGv6NQDtCx6k4ssydbYJ3vX).  Accessed 24 Jan. 2021. ICW NW

Research in neuroscience has revealed a startling fact that revolutionizes much of what we humans have previously taken for granted about our interactions with the world outside our heads: **Our consciousness is** really **not in charge of our behavior.** Laboratory experiments show that **before we become aware of making a decision, our brains have already laid the groundwork for it.** In a recent book, [*Subliminal: How Your Unconscious Mind Rules Your Behavior*](http://www.amazon.com/Subliminal-Your-Unconscious-Rules-Behavior/dp/0307378217/ref=sr_1_1?ie=UTF8&qid=1338562815&sr=8-1), physicist Leonard Mlodinow reviews a wide range of psychological experiments that demonstrate the dominant role the unconscious plays in our behavior. This recognition challenges fundamental assumptions about free will and the associated religious teachings about sin and redemption, as well as our judicial concepts of responsibility and punishment. If our brains are making our decisions for us subconsciously, how can we be responsible for our actions? How can our legal system punish criminals or God punish sinners who aren’t in full control of their decision-making processes? Is free will an illusion? In his recent book titled [*Free Will*](http://www.amazon.com/Free-Will-Sam-Harris/dp/1451683405/ref=sr_1_1?s=books&ie=UTF8&qid=1338562877&sr=1-1), neuroscientist Sam Harris pulls no punches. He tells us in no uncertain terms: “Free will is an illusion.” **We don’t exist as immaterial conscious controllers, but are instead** entirely **physical beings whose decisions and behaviors are the fully caused products of the brain and body.** [Philosophers](http://www.amazon.com/Contemporary-Introduction-Free-Will/dp/019514970X/ref=sr_1_5?s=books&ie=UTF8&qid=1338562961&sr=1-5) identify several different positions on the question of free will. *Incompatibilists* hold that free will is incompatible with determinism, the idea that our behavior is fully determined by antecedent causes such as fate, acts of God, or laws of nature. These split into two camps. *Libertarians* hold that we have free will since humans transcend cause and effect in ways that make us ultimately responsible. *Determinists* hold that we don’t have free will because either determinism is true or indeterminism (randomness) doesn’t give us control or responsibility. Both these groups are opposed by *compatibilists*, who argue that free will is compatible with determinism, or indeterminism for that matter. What exactly is determinism? Two centuries ago, French physicist Pierre Laplace pointed out that, according to Newtonian mechanics, the motion of every particle in the universe can in principle be predicted from the knowledge of its position, momentum, and the forces acting on it. This is the *Newtonian world machine*. Since, as far as physics is concerned, we are all just particles, then this would seem to make free will an illusion indeed. However, we now can say with considerable confidence that the universe is not a Newtonian world machine. The *Heisenberg uncertainty principle* of quantum mechanics showed that, deep down, nature is fundamentally indeterministic. But does quantum indeterminacy play an important role in the brain, and thus open a way for free will? Probably not, and here’s why. The moving parts of the brain are heavy by microscopic standards and move around at relatively high speeds because the brain is hot. Furthermore, the distances involved are large by these same microscopic standards. It is easy to demonstrate quantitatively that **quantum effects in the brain are not significant.** So, even though libertarians are correct that determinism is false at the microphysical, quantum level, **the brain is** for all practical purposes **a deterministic Newtonian machine, so we don’t have free will** as they define it. Although the brain is likely deterministic when it comes to the control of behavior, **there’s plenty of “pseudo-randomness”** (as opposed to “pure” quantum randomness) **in the thermal motions of our brains and in the environment that feeds us data.** It’s possible **that** this **can provide sufficient uncertainty to give us the “feeling” of free will.** Or, perhaps uncertainty plays no direct role and it is simply our lack of awareness about what causes our decisions that we interpret as being exempt from the causal laws of nature. Either way, this means that ultimately **we do not have libertarian free will, even though we might be under the impression we do.**

**b) Molecules and objects in the physical world are governed by the laws of physics, humans are composed of molecules and are part of the physical world, which means we don’t  escape this.**

[Jerry **Coyne**, [Professor in the Department of Ecology and Evolution at The [University of Chicago](http://content.usatoday.com/topics/topic/Organizations/Schools/University+of+Chicago)], “Why You Don’t Really Have Free Will,” USAToday, January 1st, 20**12**. SM] SHS ZS // ICWNW

The first is simple: **we are biological creatures, collections of molecules that must obey the laws of physics.** All the success of science rests on the regularity of those laws, **which determine the behavior of every molecule in the universe. Those molecules,** of course, also **make up your brain** — the organ that does the "choosing." And the **neurons and molecules in your brain are the product of both your genes and your environment, an environment** including the other people we deal with. **Memories,** for example, **are nothing more than structural and chemical changes in your brain cells. Everything** that **you** think, say, or **do, must come down to molecules and physics.** True **"free will,"** then, **would require us to** somehow **step outside of our brain's structure and modify how it works.** **Science hasn't shown any way we can do this because "we" are simply constructs of our brain. We can't impose a nebulous "will" on the inputs to our brain that can affect its output of decisions and actions, any more than a programmed computer can somehow reach inside itself and change its program.**

**c)  We live in a simulation, empirical analysis paired with knowledge of processing speeds proves. This means we don’t have free will because a code dictates our lives, the same way a character in GTA doesn’t have free will.**

**Khan**, Fouad. "Confirmed! We Live in a Simulation." *Scientific American*, 1 Apr. 20**21**, www.scientificamerican.com/article/confirmed-we-live-in-a-simulation/. Accessed 13 July 2021.

However, all these discussions and studies of the simulation hypothesis have, I believe, missed a key element of scientific inquiry: plain old empirical assessment and data collection. To understand if we live in a simulation we need to start by looking at the fact that we already have computers running all kinds of simulations for lower level “intelligences” or algorithms. For easy visualization, we can imagine these intelligences as any nonperson characters in any video game that we play, but in essence any algorithm operating on any computing machine would qualify for our thought experiment. We don’t need the intelligence to be conscious, and we don’t need it to even be very complex, because the evidence we are looking for is “experienced” by all computer programs, simple or complex, running on all machines, slow or fast. **All computing hardware leaves an artifact of its existence within the world of the simulation it is running.** **This artifact is the processor speed. If for a moment we imagine that we are a software program running on a computing machine, the only and inevitable artifact of the hardware supporting us, within our world, would be the processor speed. All other laws we would experience would be the laws of the simulation** or the software we are a part of. If we were a Sim or a Grand Theft Auto character these would be the laws of the game. But anything we do would also be constrained by the processor speed no matter the laws of the game. No matter how complete the simulation is, the processor speed would intervene in the operations of the simulation. In computing systems, of course, this intervention of the processing speed into the world of the algorithm being executed happens even at the most fundamental level. Even at the most fundamental level of simple operations such as addition or subtraction, the processing speed dictates a physical reality onto the operation that is detached from the simulated reality of the operation itself. Here’s a simple example. A 64-bit processor would perform a subtraction between say 7,862,345 and 6,347,111 in the same amount of time as it would take to perform a subtraction between two and one (granted all numbers are defined as the same variable type). In the simulated reality, seven million is a very large number, and one is a comparatively very small number. In the physical world of the processor, the difference in scale between these two numbers is irrelevant. Both subtractions in our example constitute one operation and would take the same time. Here we can clearly now see the difference between a “simulated” or abstract world of programmed mathematics and a “real” or physical world of microprocessor operations. Within the abstract world of programmed mathematics, the processing speed of operations per second will be observed, felt, experienced, noted as an artifact of underlying physical computing machinery. This artifact will appear as an additional component of any operation that is unaffected by the operation in the simulated reality. The value of this additional component of the operation would simply be defined as the time taken to perform one operation on variables up to a maximum limit that is the memory container size for the variable. So, in an eight-bit computer, for instance to oversimplify, this would be 256. The value of this additional component will be the same for all numbers up to the maximum limit. The additional hardware component will thus be irrelevant for any operations within the simulated reality except when it is discovered as the maximum container size. **The observer within the simulation has no frame for quantifying the processor speed except when it presents itself as an upper limit. If we live in a simulation, then our universe should also have such an artifact. We can now begin to articulate some properties of this artifact that would help us in our search for such an artifact in our universe. The artifact is as an additional component of every operation that is unaffected by the magnitude of the variables being operated upon and is irrelevant within the simulated reality until a maximum variable size is observed. The artifact presents itself in the simulated world as an upper limit. The artifact cannot be explained by underlying mechanistic laws of the simulated universe. It has to be accepted as an assumption or “given” within the operating laws of the simulated universe. The effect of the artifact or the anomaly is absolute.** No exceptions. **Now that we have some defining features of the artifact,** of course **it becomes clear what the artifact manifests itself as within our universe. The artifact is manifested as the speed of light. Space is to our universe what numbers are to the simulated reality in any computer. Matter moving through space can simply be seen as operations happening on the variable space**. If matter is moving at say 1,000 miles per second, then 1,000 miles worth of space is being transformed by a function, or operated upon every second. **If there were some hardware running the simulation called “space” of which matter, energy, you, me, everything is a part, then one telltale sign of the artifact of the hardware within the simulated reality “space” would be a maximum limit** on the container size for space on which one operation can be performed. Such a limit would appear in our universe as a maximum speed. **This maximum speed is the speed of light.** We don’t know what hardware is running the simulation of our universe or what properties it has, but one thing we can say now is that the memory container size for the variable space would be about 300,000 kilometers if the processor performed one operation per second. This helps us arrive at an interesting observation about the nature of space in our universe. **If we are in a simulation, as it appears, then space is an abstract property written in code. It is not real.** It is analogous to the numbers seven million and one in our example, just different abstract representations on the same size memory block. Up, down, forward, backward, 10 miles, a million miles, these are just symbols. The speed of anything moving through space (and therefore changing space or performing an operation on space) represents the extent of the causal impact of any operation on the variable “space.” This causal impact cannot extend beyond about 300,000 km given the universe computer performs one operation per second. We can see now that the speed of light meets all the criteria of a hardware artifact identified in our observation of our own computer builds. It remains the same irrespective of observer (simulated) speed, it is observed as a maximum limit, it is unexplainable by the physics of the universe, and it is absolute. The speed of light is a hardware artifact showing we live in a simulated universe. But this is not the only indication that we live in a simulation. Perhaps the most pertinent indication has been hiding right in front of our eyes. Or rather behind them. To understand what this critical indication is, we need to go back to our empirical study of simulations we know of. Imagine a character in a role-playing game (RPG), say a Sim or the player character in Grand Theft Auto. The algorithm that represents the character and the algorithm that represents the game environment in which the character operates are intertwined at many levels. But even if we assume that the character and the environment are separate, the character does not need a visual projection of its point of view in order to interact with the environment. The algorithms take into account some of the environmental variables and some of the character’s state variables to project and determine the behavior of both the environment and the character. The visual projection or what we see on the screen is for our benefit. It is a subjective projection of some of the variables within the program so that we can experience the sensation of being in the game. The audiovisual projection of the game is an integrated subjective interface for the benefit of us, essentially someone controlling the simulation. The integrated subjective interface has no other reason to exist except to serve us. A similar thought experiment can be run with movies. Movies often go into the point of view of characters and try to show us things from their perspective. Whether or not a particular movie scene does that or not, what’s projected on the screen and the speakers—the integrated experience of the film—has no purpose for the characters in the film. It is entirely for our benefit. Pretty much since the dawn of philosophy we have been asking the question: Why do we need consciousness? What purpose does it serve? Well, the purpose is easy to extrapolate once we concede the simulation hypothesis. **Consciousness is an integrated (combining five senses) subjective interface between the self and the rest of the universe. The only reasonable explanation for its existence is that it is there to be an “experience.”** That’s its primary raison d’être. Parts of it may or may not provide any kind of evolutionary advantage or other utility. But the sum total of it exists as an experience and hence must have the primary function of being an experience. An experience by itself as a whole is too energy-expensive and information-restrictive to have evolved as an evolutionary advantage. The simplest explanation for the existence of an experience or qualia is that it exists for the purpose of being an experience. There is nothing in philosophy or science, no postulates, theories or laws, that would predict the emergence of this experience we call consciousness. Natural laws do not call for its existence, and it certainly does not seem to offer us any evolutionary advantages. There can only be two explanations for its existence. First is that there are evolutionary forces at work that we don’t know of or haven’t theorized yet that select for the emergence of the experience called consciousness. The second is that the experience is a function we serve, a product that we create, an experience we generate as human beings. Who do we create this product for? How do they receive the output of the qualia generating algorithms that we are? We don’t know. But one thing’s for sure, we do create it. We know it exists. That’s the only thing we can be certain about. And that we don’t have a dominant theory to explain why we need it. So here we are generating this product called consciousness that we apparently don’t have a use for, that is an experience and hence must serve as an experience. The only logical next step is to surmise that this product serves someone else. Now, one criticism that can be raised of this line of thinking is that unlike the RPG characters in, say. Grand Theft Auto, we actually experience the qualia ourselves. If this is a product for someone else than why are we experiencing it? Well, the fact is the characters in Grand Theft Auto also experience some part of the qualia of their existence. The experience of the characters is very different from the experience of the player of the game, but between the empty character and the player there is a gray area where parts of the player and parts of the character combine to some type of consciousness. The players feel some of the disappointments and joys that are designed for the character to feel. The character experiences the consequences of the player’s behavior. This is a very rudimentary connection between the player and the character, but already with virtual reality devices we are seeing the boundaries blur. When we are riding a roller coaster as a character in say the Oculus VR device, we feel the gravity. Where is that gravity coming from? It exists somewhere in the space between the character that is riding the roller coaster and our minds occupying the “mind” of the character. It can certainly be imagined that in the future this in-between space would be wider. It is certainly possible that as we experience the world and generate qualia, we are experiencing some teeny tiny part of the qualia ourselves while maybe a more information-rich version of the qualia is being projected to some other mind for whose benefit the experience of consciousness first came into existence.   So, there you have it. **The simplest explanation for the existence of consciousness is that it is an experience being created, by our bodies, but not for us.** We are qualia-generating machines. **Like characters in Grand Theft Auto, we exist to create integrated audiovisual outputs.** Also, as with characters in Grand Theft Auto, our product mostly likely is for the benefit of someone experiencing our lives through us. What are the implications of this monumental find? Well, first of all we can’t question Elon Musk again. Ever. Secondly, we must not forget what the simulation hypothesis really is. It is the ultimate conspiracy theory. The mother of all conspiracy theories, the one that says that everything, with the exception of nothing, is fake and a conspiracy designed to fool our senses. **All our worst fears about powerful forces at play controlling our lives unbeknownst to us, have now come true**. And yet this absolute powerlessness, this perfect deceit offers us no way out in its reveal. All we can do is come to terms with the reality of the simulation and make of it what we can.

**2. Ethics is in a double bind. Either a) morality is motivational and people are going to follow it no matter what so it’s just descriptive, not imposing an obligation. Or b) it’s not and there’s no point to morality because everyone just disregards it so obligations aren’t present because guides have to be followed to be guides.**

**3. If I prove rules are incoherent there can’t be morality since morality is just a set of rules as to how we should live our lives. Rules are incoherent because they don’t outline how to follow each part of them meaning there are infinite interpretations. Another rule is needed to clarify but there are infinite ways to interpret that rule and it’s infinitely regressive.**

**4. Morality requires us to act immediately in the face of injustice, because otherwise we would be complicit in something bad under it. However, it also requires us to think about what to do in the face of injustice because it won’t let you just randomly act, i.e. it obligates us to hesitate. This means morality would require you to act immediately and hesitate at the same time which means it’s logically incoherent.**

**5. Good Samaritan Paradox: In order to solve X problem one must want X problem to exist since it’s existence is a precondition for it becoming non-existent, which makes any attempt to be moral inherently immoral.**

**6. In order to pick an ethical system you need a criteria for making the decision. However, you also need a criteria for how you’re going to pick which criteria to use for picking an ethical theory, and a criteria for the criteria for the criteria you use for picking an ethical theory etc. This means we can never justify a moral theory, because justification for ethics is infinitely regressive, so it can’t impose an obligation.**

**7. Ethics can never impose obligations because even if you win that some facts about the world are true, they don’t bind people to act. I.e. you can justify your framework all you want, but it doesn’t matter if people can just respond “I don’t care”.**

**Joyce** , Richard (Professor of Philosophy at Victoria University Wellington, New Zealand). The Myth of Morality. 2001. [Bracketed for grammatical clarity] // (N8)

Back to the [Suppose] external reason[s]. **Suppose it were claimed,** instead, that **I have a reason to refrain from drinking the coffee because it is tapu** and must not be touched. This reason claim will be urged regardless of what I may say about my indifference to tapu, or my citing of nihilistic desires to tempt the hand of fate. **[r]egardless of my desires (it is claimed) I ought not drink** - l have a reason not to drink. But how could that reason ever explain any action of mine? Could the external reason even explain my [action] from drinking? Clearly, in order to explain it the external reason must have some causally efficacious role [in] among the antecedents of the action (in this case, an omission) — l must have. in some manner. "internalized" it. **The only possibility, it would seem, consistent with its being an external reason, is that I believe the external reason** claim [but] : I believe that the coffee is tapu. There's no doubting that such a belief can play a role in explaining actions - including my refraining from drinking the coffee. The question is whether the belief alone can[not] produce action, to which the correct answer is “No.” A very familiar and eminently sensible view says that **in order to explain an action** the **belief must couple with desires** (such that those same desires had in the absence of the belief would not have resulted in the action). And this seems correct: **if I believe that the coffee is** [bad] **tapu but really just don’t care about that, then I will not refrain from drinking it.** So in order for the belief to explain action it must couple with [desire] elements - but in that case the putative external reason collapses into an internal one.3

**8.  Asserting that something is good is illogical and tautological. I.e. to say a chair is good is to say what is good is chairs. I.e. chairs are chairs, or good things are good. This means normative claims are illogical because we can’t describe actions as good or bad.**

**Skep Affirms:**

**1. Unjust is defined as not based on or behaving according to what is morally right and fair.1 Thus, if nothing is moral, everything doesn’t behave according to what is morally right since it’s impossible to behave according to what is morally right. Private appropriation of outer space by private entities can’t be consistent with morality since morality doesn’t exist.**

[**https://www.lexico.com/en/definition/unjust**](https://www.lexico.com/en/definition/unjust)

**2. Condo Logic: Denying the antecedent of a conditional proves it’s a valid conditional. For example, if I say “if it is raining then I’ll mow the lawn”, if it is not raining regardless of if I mow the lawn or not that statement is not proven false.**

**Stanford Philosophy.** "Abbreviated Dictionary of Philosophical Terminology." *Stanford Philosophy*, Stanford, web.stanford.edu/~bobonich/dictionary/dictionary.html. Accessed 31 July 2020.// (N8)

an “if p, then q” compound statement (ex. If I throw this ball into the air, it will come down); p is called the antecedent, and q is the consequent. **A conditional asserts that if its antecedent is true, its consequent is** also **true;** **any conditional with a true antecedent and** a **false consequent must be false.  For** any other combination of true and **false antecedents** and consequents, **the conditional statement is true.**

**The resolution is equivalent to the conditional “if morality exists then the private appropriation of outer space is immoral”, thus if morality doesn’t exist the antecedent has been denied and that conditional is true.**

**3. If skep is true it means any index is sufficient to affirm since the neg is going to argue the aff has to prove some system of values affirms. The only way you can reconcile me saying something like “the ethical system of my opinion affirms” is by claiming that isn’t the *best* source of obligation. However, if all ethical systems are wrong there can’t be a *best* source of obligation.**

**4. Skep triggers trivialism, the belief that everything is true. This is because if skep is true we don’t have the ability to say things like the sky is blue and you shouldn’t/can’t say it's green, because these claims like “shouldn’t” and “can’t” are normative words about what we’re obligated to do. But if skep is true we’re not obligated to do anything so saying “the sky is green” doesn’t have some obligation to be denied.**

**5. If anyone claims skep means everything is permissible you vote aff. To clarify, permissibility affirms.**

**a) If the resolution is a statement of permissibility it is true, because there is nothing making it logically impossible for private corporations to appropriate space.**

**b) If the neg gets permissibility that’s unfair:**

**1. It would mean they could just claim the resolution was permissible for 7 minutes to uplayer and moot the AC, so I would lose every round because the 4 minute 1ar is too short to beat back 7 minutes of preclusive offense.**

**2. The aff reads the AC in the dark, so if the neg gets to reset the paradigm issues, the aff will auto lose. I.e. if I read an aff that’s too skeptical but permissibility negates the neg will win every round.**

**3. The neg gets multiple different ways to uplayer and reset the round, i.e. ks, NCs, Counterplans, etc. so the aff should also get methods of uplayering.**

**Underview**

**1. Presumption affirms a) we presume things to be true, i.e. you believe me when I said my name was Nate. B) presuming things false is impossible because we would presume that presumption is false which also leads to a falsity and its infinitely regressive.**

**2. Appropriation is defined as the act of taking or using something especially in a way that is illegal, unfair, etc.**

[**https://www.merriam-webster.com/dictionary/appropriation**](https://www.merriam-webster.com/dictionary/appropriation)

**3. “This sentence is false OR the resolution is true.” If the first part is true and false it means the second part of the OR statement is true because the first part is true meaning the OR statement is valid since one part is true but the first part is also false meaning the second part of the OR statement has to be true since that valid OR statement needs one true part. “This sentence is false” is both true and false. If it’s false the statement it is telling the truth since it says it’s false, but if it's true then it’s false since it says it’s false not true. So no matter what “this sentence is false” is true and false.**

**4. “If this sentence is true then the resolution is true.” This is a valid conditional statement since the way you prove a conditional is valid is by showing that there are no times when the condition is fulfilled and the conclusion is false. The antecedent of this conditional can’t be true, when the conclusion is false since the antecedent is literally that the conclusion follows from the antecedent, i.e. anytime the antecedent is true the conclusion is true. Thus, “this sentence is true” is true, and “if this sentence is true, the resolution is true” is a valid conditional so the resolution is true.**