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Premisa o primicia

2.- Logic 2.1. Defining formal logic is not a method of discovering empirical truths; What she means, ultimately, is to reduce human logic to calculation, so that it can accurately and accurately find logical ways. An appropriate definition would be as follows: logic is the science of the principles of official validity of incitement. Incitement can be considered synonymous with 'thinking' or 'debate'. Thinking is the kind of thought whose characteristic design is the transition from one or more statements, which we see as a starting point, to the statement that follows. We get some data from others, we draw a conclusion from some assumptions. The interesting logic is the formal validity of these issues, whatever, the established relationship between the place and the conclusion. The validity of reasoning does not depend on the truth or lie of its premises and conclusion. There may be conclusions that its premises and conclusions are correct and yet illegal. There may also be reasoning that is valid but there are false assumptions and conclusions. The crucial thing is to understand that logic applies when its premises cannot be instructed to be false. Whether the place is actually true or not, is another matter; A problem that falls out of reason. It's not about figuring out whether such statements or what statements are true. To learn logic is to learn which other statements, given the above as true, should also be accepted correctly. The basic idea of reason is not, as we have already seen, of material truth, of truth in fact, but of consistency. Logic is not about material truths, but about formal relationships between them. Every thinking has a form and content; Structure and interest he deals with. Let's take the following logic: all psychotic schizophrenics all psychotic are unhappy people so schizophrenics are unhappy people. If we narrow it down to its shape or structure will remain: all the B is C then all the A's are C What is called a valid kind of thinking? For a plot of such a conclusion, taking into account any thinking we can do by interpreting the variables of this program (e.g. A, B, C), if the basic assumptions of thinking are correct, then necessarily the conclusion will be correct as well. The essential thing in any valid official thinking is the relationship between the necessity established between premises and conclusion, so that the truth of the former inevitably involves the truth of the latter. We can, therefore, Logic as abstract science aimed at formally analyzing arguments (thinking or drawing conclusions) or, more succinctly, defines it as an official theory of reasoning. From the definition we've made sense, we'll just have to clarify the term principles. Logic does not use, if not impossible, the task of drawing all the docive conclusions or official offensive thinking that can be done. He's just trying to determine the criteria needed to distinguish between legal and illegal thinking. Therefore, principles add up to laws or rules that must govern all good conclusions. ! This justifies whether the following indecisors are officially valid: a) The more it's spoken, the more likely some nonsense will be said some teachers talk a lot in class Lewis is Professor Lewis says some second grade nonsense) there's no wisdom where he thought wise how many scholars think they're smart and some scholars don't have 2.2 wisdom. Logic of subdivisual logic is a set of formal languages, all of them, a set of calculations, on which a particular interpretation is given. The most fundamental calculation of logic is the logic of suggestions or statements. This first calculation is intended to formally draw the legal conclusions that can be made by deducting certain statements from others, but takes each statement as a block, from the outside, without entering into the study of the internal structure of that statement. A proposal like all human beings are mortal and will be symbolized, at this level of logic, by the proposed variable p. We can interpret the same proposal differently: we can assume that men create a certain class of things, which we symbolize in the letter H, and that mortals are another class of things, which we symbolize in the letter M. The expression all human beings are mortals now sensitive to another symbol , in this new logical calculation called logic or status calculation: H'M. The phrase would be called this: the status of man is included in a class of mortals. We can still interpret the statement differently. In this statement there is a theme, men, quantifies the particle of everything, from which the mortal preacher. You can read this statement like this: per x if x is a person, then x is mortal. Its symbolism will be this: Lx (Hx @ Mx), where the symbol L is the universal asker in which the particles all symbolize, and the letters H and M are the paradigm letters of the subject x. 2.3. The intensity of arguments is valid if the conclusion is supported or derived from the place. But because the idea of surveillance or support is not entirely accurate, the idea of validity remains ambiguous. It is important here to emphasize that the arguments are characterized by a certain admiration of the person who flocks to them, mano there are a number of senses in which one claim can be made for surveillance, or supported by others. Depending on this feeling, we have different types of arguments, each type with its corresponding validity criteria. If we're referring to an argument for something very broad, there will be more than two kinds of arguments (deductive and inspirational). So if what's meant to argue is simply convincing the audience of something, then there are many ways to pretend to support the conclusion. For example, appealing to power by threat, such as in Ed's arguments in Colum, Or certain emotions, such as arguments made by Ed Mismsericurdiam, or other diverse resources (the Ed Populum argument, which appeals to the emotions of an audience; the so-called straw man, consisting of caricating an opponent's opinion in a way that is easy to disprove; to use seemingly neutral definitions in an argument; but which actually involve emotional power - a compelling definition; to present an irrelevant or secondary subject - a false clue - and therefore divert attention from the main issue; and so on. Although there are a lot of people who argue like this (demagogues are a paradigmatic case of it), they are just arguments in appearance, not in their own sense. These are un-argumentative forms of compelling discourse. Arguments will be the most rational forms of compelling discourse that they seek to persuade parties. In the latter sense, both types of classic arguments are docive and inductive. Didocative arguments are characterized because they claim that the truth instead makes the truth of the conclusion safe, while inspirations argue that the place supports the conclusion only to a certain extent. So what makes an inductive or didocative argument is the nature of the intended support between premises and conclusion. Because each other's validity criteria are different, in order to ascertain the validity of an argument that we need to know first if it is didctious or inductive, we need to know what the speaker's claim is. While one that is one or the other depends on the person's intention to do so, it is clear that its validity is already an objective issue that does not depend on subjective intentions or context. ! A political campaign ad compares political opponents to devouring dogs using pictures. Do you think it's a resource? Or convincing? 2.4. Didocative arguments These arguments are characterized by pens because the truth of the place fully guarantees the truth of the conclusion. A docive argument applies if the place supports the conclusion in such a way that it cannot happen that the area is correct and the conclusion is false. For an official attacker it doesn't matter if the place is actually right, what's important is that if they were true, then the conclusion would also be right. If such an argument applies, its territory can't be true, its conclusion is false. The assumptions and conclusion may be correct (all human beings are mortal. Socrates is a man. so Socrates is mortal); that the territory is false and the conclusion is correct (all human beings are Greek. Socrates is a man. so Socrates is Greek); Let them both be fake, all men are Russian, Socrates is a man. So Socrates is Russian); But it is not possible for the area to be correct and the conclusion is false. The discipline responsible for investigating the validity criteria of docive arguments is a docive logic. Logic does not specifically determine each of the endless legal programs possible, but investigates the general criteria under which some programs are valid and others are invalid. The validity of these arguments depends on their form or structure, rather than the content or material truth of their premises and conclusions. Therefore, logic is used by symbols (variables and constants) that allow us to do so without the specific content of the argument and to maintain only its shape or structure. That's why we can accurately demonstrate whether the argument is valid or not, i.e. whether the conclusion necessarily follows the place. The deduction is sometimes characterized as a transition from the general to Thetan, as opposed to the induction that will continue in the opposite direction. If this means that in legal docive arguments all assumptions are general statements and the conclusion is a certain statement, then that is a lie, since this is not always the case. This characterization is only true in the sense that the deduction of the summary information in the conclusion has already been included, although in a pity, in the common place. By saying the assumptions we have already said the conclusion (so that cannot happen that the area is right and the conclusion is false). The conclusion does not mean anything that is not implied in the place; What the argument does is exactly make that fact explicit. That's why we can say that docive arguments aren't broad but explain, they don't provide new factual knowledge, they give Only in the sense that they make certain explicit information contained in another. This type of knowledge is not banal or wrong, it is often paramount to understand what is instituted from certain things (the use of these arguments is common in science, philosophy and everyday life). If so, it is clear in what sense the deduction goes from the rule to the tax: deducting some of the general or total content of the information present in the place and extracting or explicitly part of it. ! What ideal of science does Descartes (1596-1650) suggest in this text of the method discourse? These long chains of very simple and easy reasons, which geographies often use to reach their toughest demonstrations, have given me the opportunity to imagine that all things that enter the realm of human knowledge are bound in the same way; So, just by avoiding thanking as truth no one it was and always maintaining the order necessary to infer each other, can there be no one, no matter how far it is located or hidden as it may be, that it has not been achieved or discovered. 2.5. Inductive and didocative arguments are an explanation only, in which no new material information is created. However, in this way we are arguably justifying new information. Therefore, there are non-deductive supporting arguments. These arguments, in which the conclusion contains more information than the place, are inspirational arguments. Given the explanatory nature of deductiveness, inspirational thinking is increasing. This property assumes that the validity criterion cannot be the same as that of a docactivity: if the conclusion contains more information than the place, they cannot pretend that the truth of the place fully guarantees the truth of the conclusion. In a valid inductive argument, any combination of truth and falseness of the claims involved is possible, including whether the place is correct and the conclusion is false. In these arguments, what support is intended to guide the conclusion? It is only meant that the place somewhat justifies the conclusion that the truth of the place makes the conclusion soothed. Here the conclusion is not necessarily accompanied by a place, but only partially supports the conclusion (so that we represent the transition from place to completion by a dashed line, and not as continuously as in the deduction). As has been said, it is often said that induction, in the face of deduction, goes from the particular to the rule. If that means that in an inspirational argument, assumptions are always statements. And the conclusion is a general statement, that's not true, as that's not always the case. This characterization of the induction expresses only that in them the conclusion contains new information about the place. Examples: a and b and c and d and... n They are crows ----- all crows are black and the likelihood of a long-term smoker suffering from chronic lung disease is very high. Juan is a long-term smoker. ----- John will suffer from chronic lung disease first is a typical example of a classic induction in which, in fact, we go from the individual to the general. The other does not go from the individual to the general and yet he is inductive thinking. Both conclusions provide us with new information, not included; These are amplified arguments that expand the information contained there. Therefore, the conclusion is not necessarily accompanied by a place, its truth is not fully guaranteed by the truth of the place. Therefore, in daily practice, a generic marker is used to indicate that the argument is inductive: therefore the conclusion is probably added (very) or another similar expression (inductive arguments were also called probability). The argument that characterizes inductive arguments may also be, such as docive, satisfied or not arguments, and accordingly they are considered legal or illegal. It is true that some authors retain the idea of validity solely for the ductitive and prefer to use correct or strong terms for inductiveness. However, if we do not forget that a different didocative and inductive attacker, there is no basis for using the same expression for both. The discipline that deals with the validity criteria of inducted arguments is inspirational logic. This discipline is much more harsh and problematic than didcock logic, so much so that for many writers it is doomed to failure. Although born around the same time, inductive logic has barely progressed and there is no standardized version acceptable to everyone yet (so when you usually talk about logic it is understandable that it is a donetative logic). However, some general considerations can be made, more intuitive than technical, on the validity criteria of inductive thinking. These arguments do not mean that the truth of the place fully guarantees the truth of the conclusion, only that they support it to some extent: the place Make the conclusion right but only reasonable. The strangeness of this (intuitive) concept of probability is its gradual nature. It doesn't happen bipolarly by all or nothing. With the truth of whether it is given: a statement is true or not, and so it is truer than the other that is also true. Actually, there are no degrees, but there's a probability that there are. If one claim is likely (let's invalid null probability), it may be more or less, to varying degrees: one reasonable claim may be more likely than another more likely. This has implications for the validity of my inspiration. Inspirational arguments apply if the argument that the truth of the place makes the conclusion likely is indeed satisfied. But since the conclusion may be, relative to the place, more or less likely, this gradual character is conveyed inducted validity. There are no more or less valid docive arguments (here it's an all-or-nothing matter), but there are inspirational arguments. One inducted argument may be better (stronger) than another, if initially the place to support more for a conclusion than the other; Or also an inducted argument can only be a little valid (very weak), or very valid (very strong). What is the minimum degree of support for the place to the point of termination to consider the valid enough argument, and how should this title be measured? That's the problem and the difficulty of inspirational logic. Some authors have tried to answer the question, but because there is no answer received by everyone and the subject is overly complex, we will not go to discuss these responses. We will stick with the intuitive and somewhat vague notion of sufficient or inadequate measure of support to decide whether an inductive argument is true or valid. When we say that the validity of my inspiration depends on how the support or probability of the place is consulted in conclusion, we mean the likelihood of the conclusion in relation to the place, not the likelihood of the conclusion itself, regardless of the place. What matters is the probability of the relative (truth of) the place. The high probability of concluding as such does not state that the argument is legal; There may be err inductive arguments with a very reasonable conclusion. For example: every day to this day the sun flowed. Therefore, the next round of roulette wheel will come from a different number of 1'. Here the conclusion as such is highly plausible, but it is not in relation to (the truth of) the premise, so the argument is invalid. Another difficulty in which inspirational logic lies is the question of its official nature. Basically, all the logic The validity of specific conclusions is not studied so much as legal patterns or conclusion plans, since validity does not depend on the material aspects of the inferences. The best example of this is ductitive logic, which replaces the material content of suggestions with symbols of these content (variables) and uses other (fixed) signs to symbolize the actions performed with those suggestions. However, in inspirational logic, it is unclear exactly what its official nature is. This is because an inductive effect, which ent takes some degree of probability, seems to depend on certain material aspects of the argument. Let's take this example: all the shoes I've bought so far at the Foot Easy shoe store have given me an excellent result. Therefore, the shoes I bought at the shoe store will give me an excellent result. The validity of this thinking will depend on the number of shoes I previously bought in a shoe store, because if I bought only a pair of shoes before its attacker is very weak, where there are known to have been four pairs, the strength of the argument is greater. The problem, then, is that the official nature of inductive logic may not be the same as that of a donetical logic, because the components in which the two types of dependency are inferred are not the same. Therefore, it is not that inductive logic is not official, but that the inductive logical form is highly complex and takes into account certain aspects that in didctative logic tend to be considered matter; Therefore, systems of inducted logic take into account the number of specific cases underlying a general statement, and some also take into account the quality of these particular cases. ! Research on the philosophy of Francis Bacon (1561-1626) ends with these words: inductivative thinking... The glory of science... The philosophy scandal. Justify that thesis. 2.6. Mistakes in deducting errors in arguments are unusual. In docive arguments the mistake is that the territory can be right and the conclusion is false. Although there are a lot of incorrect ductative programs, in many cases these invalid arguments follow certain typical patterns. These typical or ordinary ways

of arguing wrongly are called different. Applies to didocative conclusions, a failure occurs when the argument violates each of the regulations that must control any lawful deductive thinking. Let's look at some of them, a request for principle: it is not appropriate, it is clear that this is a valid but trivial formal argument. A request for principle (prinzipial patio) is made when it is What is to be demonstrated, so, when it is included, even obediently, the conclusion as one of the assumptions. It's an unsatisfactory argument as trivial. In a way it would be like saying if A and C and B are true, then A is true, which is true, but without interest, since the conclusion is as it is, or almost as it is, in one place. Sometimes the conclusion serves as such a hidden assumption, binge, it is not in the argument, but it serves as such a (hidden) assumption. - Official malfunction. These failures are consistent with plea plans whose structure is inconclusive and whose appearance, to those who are not reason-trained, is that of a valid conclusion, but is in fact not ambiguous. The best known is all of confirming the outcome, whose plan is: if A, then B.A. that this scheme is not valid is easily presented if we build an argument with him in which it is the real place, the conclusion can be false. Another similar mistake is the denial of origin: if A, then B not A not B there are many official failures, this is enough to indicate two other programs that are sometimes taken by mistake as attacks: some of the P are Q is Q is R no Q is R is R - ambiguity and inaccuracy. This group of cypresses has to do with some form of indecision of some of the claims involved. This insolvency may be due to ambiguity or ambiguity; Ambiguity in the Torah can be material or official. Cases of formal ambiguity (sometimes referred to as bi-hibology) are those in which, because the logical form of each of the claims involved is unclear, it can be interpreted in a number of ways and in some ways the argument is invalid. A typical example is the statement all Ps are not Q, which can be interpreted as not all Ps are Q or as all Ps are non-Q. So an argument like any software is not foolproof, deep thinking is a computer program; Therefore, deep thinking is not foolproof, it is ambiguous; Can fit into one of the following two programs, and only the other is legal: not all Ps are Q all Ps are non-Q to is P ____ a is P _____ a is not Q a is not Q another typical case of formal ambiguity and has to do with the joint action of the two quantifiers, as the first premise of the next argument children always admire an athlete, Peter and Paul are children; Peter and Paul adore the same person. Both possible interpretations are evident, just as only one of them is valid. Material ambiguity stems from the ambiguity of some of the irrational expressions in the argument, which could be two things (Words like bank or cat). If in one sentence the phrase says one thing and in another it means something different, the argument may be wrong. For example: some animals are cats, cats are metallic; That's why there are metallic animals. The argument has two interpretations: how much A they G they G are G all Gs are M they M are M they M are M they M are M in the first version the argument is officially valid, but intrinsically inappropriate when the second premise is false. In the second form it is materially appropriate, but is officially illegal. In these cases it is said that a mistake of injustice has been committed. Lack of material ambiguity is similar to other types of material malfunction, ambiguity or inaccuracy. Many inappropriate arguments seem appropriate because they contain vague assumptions. If these are more required, the argument is incorrect; If they are required in such a way that the argument is officially valid, then the territory is no longer acceptable. - There's no persistence. In such containing the place, in various ways, not at the same rate, is insufficient or irrelevant to establish the conclusion. They are very common in disputes or alleged debates. Among the containments belonging to this type are Ed Borantiam, Ed Homin, Ed Vercondiam and Bora Allenci. The argument of an ignorance ad is intended to constitute a certain statement on the basis that it has not been proven to be costly. But clearly the lack of evidence against her only stems from the possibility that the claim is true, rather than its effective truth. The ad hominin arguments are designed to establish a certain statement by attacking or responding those who defend the contrary. For example: there is no real danger of defection from the impact of the ozone hole, because it has been known that it is only protected by environmentalists, or is it not true that, as Fidel Castro says, there is exploitation in Latin America, whatever a communist will say! These arguments are foolish because, as the classics have said, truths are truths even if they are spoken by satan. The publication's arguments are a degenerate case of arguments by authority, namely arguments that appeal to an expert's opinion on the subject. For example, AIDS is growing more in the Americas than in Europe, the WHO president said. If the implicit assumption that the expert's judgments are correct is justified, these arguments are legitimate. But often the appeal to the alleged authority is unfounded, it's just an argument, so the argument is unfounded. The ignorance of spanking occurs when in an argument that continues correctly A certain conclusion ultimately changes the legitimate conclusion to another illegitimate but is associated, sometimes more generally, more specifically. We would find ourselves in the first instance when, for example, in an argument that its basic assumptions would correctly establish that heroin use is harmful, it was intended to conclude that the use of any drug was harmful (so that this conclusion would be valid and more territory would be required). And in the second case, when, for example, in an argument that would strongly conclude that the deficit should be reduced, it would be agreed that taxes should be raised. - Forget alternatives. An argument can be subscribed if the place does not contain all the options or alternatives in the subject. This is a very common infidel, however, it is not always easy to identify. Argument of type: A or B, not A; Therefore B is perfectly valid, but if the first premise does not contain all possible alternatives to the subject, then the conclusion we have drawn is wrong; Because if, instead of the breakdown of two elements, the conclusion will not be B, but 'B or C or D'. The argument seems to be legal, but it is because it hides or forgets certain elements of the alternative present in the place. - Hidden assumptions. These arguments, though not properly violated, are incomplete because they contain hidden or elliptical assumptions. In most of the arguments we find out, we do not explain all the areas and let the context indicate what elliptical assumptions we make. These arguments, which can be properly completed by expressing implicit hidden assumptions, are called entimemas. The most famous case is a certain interpretation of Descartes's statement I think, so I exist. According to this interpretation, this is antima which has dark and its second assumption - hidden - statement that everything think exists. 2.7. Induction difficulties in the study of inductive validity are transmitted to that of such cases. It is difficult to determine in many cases whether an inducted argument, which is not entirely far-fetched, is valid enough or not. This is even more to establish patterns of typical illegal inducted cockroaches. But you could say something about that. The first inductive error is similar to one of the docive mistakes: the claim of the result. It's not a good inspirational argument either. Example: Parsis is a stage of syphilis that develops a very small percentage of men who have contracted the disease; Suppose John has syphilis and consider the following argument: If John has fares, then John has syphilis. John has paresis and the assumptions are correct and yet the conclusion is highly unlikely (relative to the place). The inducted conclusion is illegal, since the truth of the place is not (sufficient, very) to make the conclusion reasonable. Against what is often believed, the truth of the outcome does not make precedence the most soothed. The same is true of this more sophisticated example, which locks in statistical-probabilistic assumptions: 99% of English fans Maria Callas Plácido Domingo adore Maria Callas ----- Plácido Domingo is English not yet enough typical data, as was the case in the example of a shoe store if only in the past we purchased a pair of shoes. The inadequate inclusion limit case responds to the following plan: the only known P case so far is Q ----- all Ps are Q however, it depends on what is in question we can consider valid induction acceptable even if the number of previous cases is relatively low, especially if the conclusion is not general but only in the next case. That the first three coins someone took out of their own pockets are money, that's not an inspirational enough reason for the next one to be. But the first three musical works by a particular composer are masterpieces that make up a sufficient inspirational basis, so the following works are at least not bad; If in the first three 100m races. An athlete goes under 10 seconds, he is inspirationally well established to watch, for example, that in the next race he will not exceed 11 seconds. Another typical form of incorrect induction is to err on causal links. A common state of confusion occurs when unexpected events accidentally overlap. For example, if after a national sporting disaster there is a sudden decline in the stock market, after another sporting disaster of equal magnitude someone can hastily conclude that the stock market will also decline. The compared causal relationship between the sports disaster and the decline of the stock market makes this argument flog. Finally there is an illegal inducted program that is particularly interesting on topics such as statistical explanation, probability laws and the problem of induction. In docive arguments, the introductory program of the following conditions applies: everything like B All As and Cs is a sample B: all philosophers are boring. So all German philosophers are boring. The same is true of a particular summary set derived from predecessors: every A. A. and A. is B. However, in inspirational legislation the corresponding plan for the second is invalid: almost invalid: almost A are B a is A and ----- is A for example: the vast majority of women have children. Teresa is a woman and a nun. Theresa probably has children. Still, the following pattern is inspirationally valid: almost all B a is A ----- a is a B you'd think the example above shows the opposite: the vast majority of women have children. Teresa is a woman. Theresa probably has children. But it's not, this inducted argument is perfectly valid. The fact that the place is correct and the false conclusion only shows that in valid inductive arguments, contrary to docive arguments, the truth of the place does not guarantee the truth of the conclusion. If one is inductively valid and the other is not, it is precisely because 'all as they are B' concludes from 'all as and C' are B', while 'almost all (mostly) of A are B' and 'almost all (most) of the A and C are inferring or induced'. The result is another difference between a didocative validity and an inductive validity: while in docive logic we can share the conclusions of different arguments if we combine the place, not inspirational logic. If A and B end with a deduction of P and C and D in a deductive summary Q, then necessarily A and B and C and D will end with a deduction of P and Q. However, even if these two separate arguments are inductively valid, this does not guarantee that P and Q will end inductively from A and B and C and d. This oddity is called inductive ambiguity. ! (A) Answers the following questions around ductitative and inductive thinking: 1. How is the intensity of the inductive and insatiative arguments different? 2. Give a correct example of each of them and explain why they are legal. 3. In what sense is one augmentative or broad and the other just an explanation? 4. If the conclusion of inductive thinking is in itself highly likely, this means that logic is valid. Set an example. 5. Explains about 100 types of argument. ! b) It analyzes the type of flaws contained in the following examples: 1. This idea is unacceptable, as protected by Manganito, that it is corrupt. 2. No serious ecological problem, said a famous computer expert. 3. It was noon, because it wasn't night. 4. After first entering a Chinese restaurant, he concluded that Chinese restaurants offer a cat to the rabbit. 5. No one has proved that the hypothesis of the existence of aliens is false; And then there are aliens. Appendix: Development of Logic Formal logic was born two thousand and five centuries ago, when Aristotle and the Stoics became interested in building and analyzing plea bargaining programs. Since then, unlike other sciences, he did not experience developments of much consideration until the mid-19th century. A century earlier, Kant, a German philosopher, still managed to argue in his criticism of pure logic that logic since Aristato should not have taken a step back, nor had he been able to take a step forward until now. So, in every way, make yourself summarized and perfect. It was written in 1787. Half a century later the cantine vision of a lack of mobility and perfection of logic would be perfect. From the mid-19th century logic entered a process of development that had not been preceded since the greek times. The key to this progress lies in the revolutionary contributions of Bola English and German Ferge. They determined what is often called the mathematicalization of reason. Mathematics means the subordinate of science to the method of mathematics. A shining example of the advantage of mathematics is physics, which has begun to advance remarkably well since Galileo overlapped it with the rigours of the mathematical method in the 17th century. Mathematical logic is the result of a convergence of four lines of thought: 1. Ancient logic: it was the invention of Aristotle (a syllogistic logic, highly developed in the Middle Ages; only the appearance of Ball [the mathematical analysis of reason] was given a transformation of a silologist into the mathematics of a particular thinking). In addition, the Magrice school and stoica stand out, which have developed a logic of statements. 2. The idea of full and automatic language for thinking: 'Ars Magna by R. Llull. - Delgrano Wilkins' languages. - The idea of a general language in Descartes. - The idea of a thought mathematician in Libnitz. 3. New advances in algebra and geometry that occurred after 1825: -peacock algebra. - Lubachevsky's non-Euclidean geometry. 4. The idea that there are parts of mathematics that are such docive systems, so, chains of thinking that conform to the laws of reason. In the development and development of mathematical logic, we can emphasize the following crucial moments: - Bull's logical algebra; the mathematical analysis of logic, 1847. - Algebra of Logic after Boole: 'W.S. Jevons (n.1835): Principles of Science -C.H.S. Peirce (1839-1914): Promoted class logic, relationship logic, utterances and logic of the usefulness. A. Schroeder (1841-1902): Lessons on algebra of logic. - The logic of Frige (1848-1925): Taking it a step further stated that arithmetic itself is part of logic. - Cantorial ensemble theory (1845-1918). - Logic of Penó (1858-1912): He used the logic of statements to clarify the arguments of mathematics. - Principia Mathematics (1910-13) by Whitehead and B. Russell: Together in the general system the logical algebra of Ball and Sroder and the theories of Frige, Cantor and Penó; Among other things develop the theory of togetherness or logic of statements, the logic of predicates and the theory of class and relationships. - Other late authors: -Lukasiewicz (1878-1956): He invented trivalent logic. D. Hilbert (1862-1943): Developed methetics. -Size (1906-1978): Discovered the Cain theorist that no axiomatic system of elementary calculus is completed if it has the characteristic of consistency. 3.- Logic Exercises Goal 3.1.- Formalization: Elementary Exercises 1.- Either you practice charity or you will lose your soul: 2.- When money speaks, Truth of Silences (Chinese proverb): 3.- Those who live frightened, will never be free (Horace): 4.-First think and then speak (Mushh-Ud-Din Saadi): 5.- The only real science is knowing how a person should live his life and that knowledge is open to all 6.- Queasy is an animal, unless it's a plant: 7.-Fewer men think, as they speak (Montesquier): 8.- Duty is what we expect others to do, not what we do ourselves (Oscar Wilde): 9.- Believe those who seek the truth, doubt of those who found it (André Gyda): 10.- There is no third way. Either you are a slave to the people or of God (Tolstoy): 11.- We cannot love those we fear or those who fear us (Cicero): 12.- A person whose greenhouse only manages to aggravate his wounds (F. Bacon: 13.- Don't get your mistakes equivalent to increasing them (Tolstoy): 14.- It's not true that bats are birds or seals are fish: 15.- You devote yourself to free love and you'll see how you're surprised by death in mortal sin 16.- If two numbers aren't equal, So one is bigger than the other: 17.- Prosperity makes friendships. And adversity proves to them: 18.- If people spoke only when had something to say, humans will soon lose the use of language (W. Somerset Maughan): 19.- A number that is less than zero is a negative number: 20.- You don't enter the truth without going through the twist itself (Sil) 21.- If you want others to talk about you well, don't talk good about yourself (b. Pascal): 22.- When I am surprised at the moment of rebellion I take a sleeping pill or consult a psychiatrist (Cioran): 23.- Once the animal gets angry, it starts to look like a person. (Cioran): 24.- This metal melts if and only if it is subjected to a very intense heat 25. - It's - It' Walk in the rain, as long as you have something sad enough to think about: 26.-When one has no imagination, death is small; When one has it, death is too much (Celine): 27.- Be meticulous with yourself, forgive others, and therefore you will have no enemies (Chinese wisdom): 28.- If you do well and ask for reward, you weaken the power of your goodness: 29.- Knowledge is authentic knowledge, only when acquired thanks to the effort of intellect and not just memory (Tolstoy): 30.- If not So, if the school doesn't want to end up being a prison institution, the will must be the basis of education (S. Weil): 31.- If you let a hungry person fish enter it during a day. If you teach him how to fish, you will feed him his whole life (Lao Tse): 32. And if he doesn't testify, he'll also be found guilty: 33. You cannot deceive someone who does not exist; So I exist if I deceive myself (St. Augustine): 34.- If history had a purpose, which would be unfortunate would be the fate of those of us who had done nothing in life. But in the midst of the general absurdity, we rise to winners, ineffective philtrape, villains proud to be right (Cioran): 35.- Either we must philosophy or we don't have to. If we have to, then we have to. If we can't, then we have to do it, too. So either way we have to have a philosophy: 3.2. Other Logic Exercises 1.- Determines in the following examples the true value of the complex sentences using the given truth values of the constituent sentences: p) Galileo was born before Descartes (1) q) Descartes was born in the 16th century (1) r) Newton was born before Shakespeare (0) Racine was a compatriot of Galileo (0) A. If Galileo was born before Descartes, then Newton was not born before Shakespeare: B. If Racine was Galileo's compatriot or Newton was born before Shakespeare So Descartes was born in the 16th century: C. If Racine wasn't Galileo's compatriot, then either Scarts wasn't born in the 16th century or Newton wasn't born before Shakespeare: D. If Galileo was born before Descartes and Descartes were born in the 16th century, Newton wasn't born before Shakespeare and Ratzin was Galileo's compatriot: E. If Galileo was born before Descartes, then if Newton wasn't born before Shakespeare and Ratzin was Galileo's compatriot: E. If Galileo was born before Descartes, then if Newton wasn't born before Shakespeare and Ratzin was Galileo's compatriot: E. If Galileo was born before Descartes, then Newton wasn't born before Shakespeare and Ratzin was Galileo's compatriot: E. If Galileo was born before Descartes and Descartes were born in the , Descartes was not born in the 16th century: 2.b) being for such an offer that for every q offer, the p q statement is false, what is the value of p? c) ® q so that for true prayer r v s, the statement (p ®q) s (r v s) is false. What The value of P? d) If the declaration (p-q) ®(p-r) is false, what is the value of r? e) p be a real statement p v q: What value does q have for the p-variable to necessarily be true? f) If the p&q offer is correct and consequently also, what is the value of p? (G) It indicates and justifies the conclusion that follows the following two amplifications: (p. ®q) p. 3.3. Exercises of truth or values A) (p s q) v (p.q) b) (p.p) c) (p v .p) « (q v q) d) (p (q v r) ®p' ®p'j) (p v q) ' (r ® p) ' (s ® q) ' ® 3.4. Natural Deduction Exercise 1.- If history is constructed from the perspective of parapsychology, the facts are interpreted as a result of early visions. But under no circumstances can the facts be interpreted that way. So history cannot be construed as a statement of parapsychology. 2.- If I always tell the truth, then others trust me. If others trust me, I feel safe and independent. Also, when I feel safe and independent, I find myself able to deal with any problem. And it's true that I always tell the truth. I can conclude, then, that I can handle any problem. 3.- If the whale is a mammal, then take oxygen from the air. If you're taking oxygen out of the air, you don't need gills. The whale is a mammal and lives in the ocean. So, he doesn't need gills. 4.- If there are no contraceptives, the population grows indefinitely. But if the population grows indefinitely, the poverty rate will increase. As a result, if there are no contraceptives, the poverty rate will increase. 5.- If the amendment is not approved, the Constitution remains as it was. If the constitution looks like it was, new members cannot be added to parliament. Either we can add new members to parliament or the troubleshooter will be delayed. But obviously problem solving won't be delayed. Therefore, the amendment was adopted. 6.- If Schopenhauer was not mistaken, the only way to escape suffering is to renunciation of passion. If Schopenhauer was wrong, passion doesn't create suffering. Life is a way of roses or passion creates suffering. Life is not a way of roses. So the only way to escape suffering is to reestablish to desire. 7.- The sun rises every morning if and only if the Earth rotates. The Earth rotates and the moon moves around the Earth. Then the sun rises every morning or the weather is very cold. 8.- If it is not true that if an object floats in water then it is less dense than water, then you can walk on water. You can't walk on water. If an object is less dense than water, then it can uproot an amount of water equal to its weight. If you can transfer an amount of water equal to your weight, then the object will float in the water. Therefore, an object will float in water if and only if it is less dense than water. 9.- If desires to govern us, then we have no self-control. If we're not rational people, then desires control us. So if we have self-control, we're rational people. 10.- If she was, then non-humanity is not. If so, we are. If being not and me, then I dived into a thesa. And we're not, or isn't, the non-yin. So if so, I'm a confused man. 11.- If God exists, then the soul is immortal. If the soul is immortal, it will be judged. If she's judged or everyone's going to have a good fate, then you should strive to be virtuous. You shouldn't try to be moral if everything is allowed. Therefore, if God exists, not everything is allowed. 12.- If two gases have the same temperature, then their molecules have the same average kinetic energy. Equal amounts of two gases have the same number of molecules. The gas pressures are the same if their number of molecules are the same and their kinetic energies are the same. Therefore, if two gases have the same temperature and volume, they have the same pressure. 13.- Each inte a number is prime or compound. If it is complex, it is a product of primary factors and if it is a product of primary factors it is divided by them. But if an intimation number is preliminary, it is divided by itself, so, also divided by prime numbers. Therefore, each insam is divided by prime numbers. 14.- The sciences are either factual or official. If they're factual, they empirically check their statements. If they're official, they demonstrate their statements from the axiom of the system. So the statements of science are empirically tested or demonstrated by the axiom. 15. - A health inspector went to review Mr. Chicken's poultry farm. That, watching it come, let go of the following explanation: either I'm hungry or I really like chicken. If I'm hungry the chickens on the farm taste good, but it's obvious that if poultry farmers know what they're doing, the farm chickens don't taste good. If the poultry farmers didn't know what they were doing, then the feed was in good shape. But then again, if the feed wasn't in good shape, I wouldn't like chicken very much. Do you understand me, Inspector? Of course, Mr. Chicken, the inspector answered. You mean the feed's in good shape. Is the inspector right? Check his conclusion. 16.- If the freedom is to do what you are allowed or what all yes, so he has no interest. If you're going to live, then freedom has a vested interest. You either pretend to be alive or you play dumb. It's true he's not playing dumb. So the freedom is not to do what you're allowed to do, and it's not about doing what everyone else is doing. 17.- It is not true that Mr. Hergenroether knows languages or controls the subject of Atrossecs. If he doesn't know languages, he can't translate the book alone. Without controlling the subject, he couldn't write it either. Therefore, Mr. Hargrother could not have translated or written the book. 18.- If we allow ourselves to be tempted by the desire for wealth or consumption, then happiness will be given to us. If we don't allow ourselves to be tempted by the passion for wealth, we'll be freer. If we learn to live with what is necessary, we will not be tempted by the desire for consumption. If happiness screws us up, then we allow ourselves to be tempted by the desire for consumption. So, if we learn to live with what's necessary, we'll be freer. 19.- If one is on the move, it must be, or of an unchanged movement in the country, or change. It can't be a movement of change [because then one will stop being one]. If that was the first thing, it would have to be either a round of one rather than yourself where it's located, or change from one place to another. But nothing happens. So one is not subject to any kind of movement. 20.- If she was, then the non-wonder is not. If you were honest, then we are. If I don't, neith do we. If non-man is not and we are, then everything is fine. I'm not, or the non-y-y-y-y-y-y-y-y-y-y So if it was her or us, everything's fine. 21.- Dostoyevsky wrote the Brothers Karmazov and Tolstoy Anna Karenina or War and Peace. If Dostoyevsky wrote the Brothers Karmazov and Tolstoy Ann Karenina, then Shakespeare wrote King Lear. If Shakespeare wrote King Lear, then Calderon didn't write Don Quixote de la Manche. If Cervantes wrote Life is a Dream, Calderon wrote Don Quixote de la Manche. If Cervantes wrote Life is a dream, then it's not true that Tolstoy wrote War and Peace and Dostoyevsky the Krazov brothers. I mean, Cervantes didn't write life is a dream. 22.- If aliens ever visited Earth, then they cared deeply about erasing all traces unless the great forces kept all the signs secret. If the upright people cared about erasing their tracks, it would be very difficult to discover their presence among us. If the presence of these people is difficult to detect, then only the most optimistic optologists are on the real track. Now, the most important apologts they're on the real track if and only if the great powers keep all the clues a secret. So, if aliens visited our planet, only the most optimistic optologists are on real orbit. 23.- If it rains or snows, then I get wet or cold. If I'm cold, I dedicate the day to the studio. But if I spent the day studying, my brain would be surprised. It's not true that my brain is surprised or that I get wet. Therefore, it is clear that it is not raining. 24.- If we ask ourselves what is it for? And we don't ask ourselves, is that true? Is it true we're asking ourselves what it's for? If we're thinking about techno-scientific status, then we're trying to rule the world. If we're thinking, then we're trying to understand the world. If we try to understand the world, then we won't try to control it. As a result, if we're thinking, we need to ask ourselves about the truth. 25.- O Spinoza was born in the Netherlands and Leibniz in Germany or rather Spinoza was born in the Netherlands and Descartes in France. If Pico de la Minderola wasn't born in Italy, then Leibniz wasn't born in Germany. It is not true that Fico de la Minderola was born in Italy and John Locke was not born in England. Now, if Descartes was born in France, Pico de la Minderola was born in Italy. In conclusion, John Locke was born in England. 3.5. Other natural deduction exercises as we esino in Mr. Conrad's estate occurred murder; His wife was the victim. Murder weapon: knife (p) or macheto (q). Only one of those in attendance was: the butler (r), Mr Conrad(s), the gardener (t), Mr Conrad's daughter (u) or the lover of the deceased (w). An unknown informant provided us with the following information: If it was with a knife, then it is not true that it was the gardener or the daughter. If it was the butler or Mr. Conrad, then a macheta was used. Besides, if he wasn't the lover and neither was Mr. Conrad, then he'd be the gardener. Resting nothing for sure, it's not true that if the knife has been used, then the macheto has been used. That's all I can reveal to you. Yours is the solution. El Toro, LA MORT I ELS EXTRATERRESTRES Formaldice els diferents de the cheeky de premisses I invest in what is pot -gicament-deudir. 1.- If the bull tingués erected this de l'humor or fos animal venjatiu, s'asseuria al mig de la placa i faria baccaina multicide. If the bull is seeded to the ceiling, marxarin viewers cheat or the bullfighter feels ridiculous. Not the bullfighter doesn't sit ridiculous, nor does the Marxan deceive viewers. Conclusions of Koina or Keynes de les Sageant? A) The bull tea sent it into humor. B. The bull didn't tea it de l'humor. c) The bull is not an animal and a najatiu. 2.- If Mort's punishment The protection of society for human conservation, if it assumes the absolute destruction of man, does not allow the correction of death row. If it doesn't allow the amendment, it's reprehensible to me. The death penalty prevents society's support for human conservation. Which of the following conclusions is legitimate? a) The death penalty is reprehensible to me. b) The death penalty is unworthy of reproach. c) If the death penalty is not reprehensible to me, it allows the correction of the convicted person. 3.- If there were people from outer space and they had intelligence, they would contact us with a congratulatory message or they would come to visit us. If they had visited us, they would have publicly presented their credentials to humans. If so, then all human beings would describe them in a similar way. It is not true that all human beings describe to the body from outer space in a similar way or do not necessarily have an anthropomorphic image. Challah doesn't have an anthropomorphic figure and they didn't refer to congratulatory messages. Which of the following conclusions is legitimate? a) There are people from outer space. b) If people from outer space existed, they would have no intelligence. c) People from outer space visited us. Elliot Ness's Unaided I'm Al Capone, best known for face intimidation. I remember the day of the damning trial that cost me 40 years in prison. My lawyer made hands and sleeves to convince the jury of my innocence. He looked at them safely and told them: Gentlemen of the jury: either Marina Howard is not the prime suspect or Roland Hawkes does not have a perfect fourth. They would agree with me, Your Lordship, that if Howard naval is not the highest suspect, then we'll have to say that if the gun is found then Mr. Al Capone is guilty. They can be sure Mr. Hawkes' quarter is absolutely perfect. Consider now, gentlemen, that if my defendant, the honest citizen and model of Al Capone virtues, is guilty, it will be undisputed that Mr. Hawkes's fourth is perfect. Note that admitting that Mr. Roland Hex's fourth is perfect forces us to admit that Peter Green is an associate of Marina Howard. And if Mr. Green is an associate of Ms. Howard's, we can't accept that Mr. Roland Hawkes cooperated with Mr. Peter Green. They must plead guilty to Al Capone if and only if the gun is found. The jury, who never learned logic, sought advice of swarming logic that showed them Logic was quite right and they had to declare an innocent intimidation face for lack of evidence. He entered the room, sweaty and snorting, Inspector Eliot Ness, who found the gun in a search at the bottom of a Chicago pier. Thus, the lawyer's furniture turned against him and the jury did not hesitate to start at AL. a) Do you know how to analyze the lawyer's logic? b) By what sensible rules did the appearance of the gun reveal that face intimidation was to blame? Guilty?