1. The Central Problem of the *Critique of Pure Reason*
   1. The central problem is to show how it is possible for concepts of the pure understanding (categories) can apply to objects of human experience.
   2. The problem arises because the human mind does not create its objects of experience, but they are given to the human mind in sensibility (Letter to Herz).
   3. If it cannot be shown how given objects are subject to the categories, then any application of categories to given objects is not justified, and metaphysics is not possible as a science.
   4. The result would be mere empiricism, which cannot establish the necessity which metaphysical judgments must carry with them.

2. The Failure of the Leibniz-Wolff Metaphysics
   1. The metaphysics of Leibniz and Wolff rests on two principles:
      1. The principle of contradiction (inconsistent concepts cannot refer to objects).
      2. The principle of sufficient reason (objects exist and have their properties only if there is a reason sufficient to bring them about).
   2. Wolff tried unsuccessfully to reduce the principle of sufficient reason to the principle of contradiction.
   3. The principle of contradiction by itself does not serve as an adequate basis for metaphysics, for it involves only comparison of concepts for their consistency, whose result is only negative and does not reveal what properties objects must have (Amphiboly of the Concepts of Reflection).
   4. So the principle of sufficient reason is required to justify the application of categories to objects of experience.
   5. This leads back to the original problem, whether there is sufficient reason to apply the categories to objects of experience so as to yield necessary judgments about them.

3. The Outline of a Solution to the Problem
   1. Categories would apply to objects of experience if they are conditions for the possibility of experience itself.
   2. Experience is a connected whole of appearances, which are objects insofar as they are related to their being given to the human mind.
   3. Thus the task is to show how it is that appearances are shaped into a coherent whole of experience in accordance with the categories.
   4. This will be shown by revealing how the human mind itself injects categorial content into the objects of its experience (Prefaces).

4. Judgments
   1. All judgments have the character of necessity if and only if they are made *a priori*, or independently of experience.
   2. Judgments may be analytic, which are true by virtue of comparison of concepts, in conformity to the principle of sufficient reason.
   3. But analytic judgments inform us of only conceptual relations.
4. What is needed to go beyond comparison of concepts is synthetic judgments, which unite concepts through an extrinsic factor = x.

5. The issue can now be framed in terms of this question: how are synthetic judgments possible a priori? (Introduction)

5. **Mathematical Judgments**
   1. Mathematics, including arithmetic and geometry, contains many synthetic judgments which are made a priori.
   2. Such judgments are based on the “synthesis” of the objects about which the judgment is made.
      1. The numbers 7 and 5 are united in the number 12.
      2. A triangle is drawn in a geometrical proof.
   3. The synthesis can take place only insofar as there is an “intuition” of the synthesized objects.
   4. The a priori forms of the intuition of mathematical objects are space and time.
   5. But space and time themselves have their seat in human sensibility, and they are the a priori forms of all appearances.

6. **Transcendental Idealism**
   1. Because space and time have their seat in human sensibility, they are ideal.
   2. Since all appearances are in space and time, they are ideal as well.
   3. Appearances are appearances of things in themselves, which are not ideal, but are taken to be real in a “transcendental” sense of reality.
   4. Appearances are real as well, but only in an “empirical” sense of reality.
   5. Commentators have disagreed over the status of things in themselves.
      1. The traditional metaphysical interpretation is that they are real beings standing outside of all human experience.
      2. The epistemological interpretation is that they are abstractions, what is left in thought when space and time are left out of the conception of an object.

6. **Transcendental Logic**
   1. The doctrine of space and time as a priori forms of intuition belongs to “Transcendental Aesthetic” because it concerns human sensibility alone.
   2. The other cognitive faculties of the human mind are understanding and reason.
      1. The understanding is the power of judgment.
      2. Reason is the power of inference.
   3. Each of these powers may be exercised in one of two ways:
      1. Generally, without regard to the origin of its objects.
      2. Transcendentally, as applied to a priori concepts.
   4. Transcendental logic has two divisions, based on the two cognitive faculties.
      1. Analytic, the logic of a priori judgments.
      2. Dialectic, the (illusory) logic of inferences from a priori judgments.

7. **The Analytic of Concepts**
   1. The analytic of concepts concerns pure, a priori, concepts of the understanding.
   2. The analytic of concepts is divided into two “deductions”
      1. The metaphysical deduction, which shows how the categories are based on the forms of judgment used in general logic.
2. The transcendental deduction, which shows why it is legitimate to apply the categories to objects of experience.

8. The Transcendental Deduction
1. The conclusion of the transcendental deduction is that nature as a unified body of experience is possible only if the objects of experience fall under the categories.
2. The argument of the deduction falls into two parts.
   1. Why the categories apply to objects of an “intuition as such,” regardless of its forms (which for humans are space and time) and hence to objects of intuition as such.
   2. Why the categories apply to the spatio-temporal objects of human intuition and thus to objects of human experience.
3. For the basic argument of the first part is as follows.
   1. If intuition is to be unified for me, I must be able to refer it to a unified “I” for which the intuition is unified.
   2. The role of the categories is to provide the single means whereby intuition is to be united in a single “I.”
4. For the second part, the argument goes like this.
   1. My intuitions are given in space and time as their forms.
   2. For my intuition to be unified, space and time must be unified as well.
   3. The role of the categories is to provide the single means whereby space and time are united in a single “I.”

9. Schematism
1. Although it has been shown that the categories are necessary for the unity of human experience, it has not been shown how they can apply to objects of human intuition.
2. The answer is that there are “schemata,” which are ways in which time exists, which share traits of the categories and traits of intuitions.
3. Any category which is to be applied to an object of experience must be “schematized” to give make it applicable.

10. The Analytic of Principles
1. There are four sets of principles which govern the application of the categories to the objects of experience.
2. The four sets are divided into two types.
   1. Mathematical, which govern the objects’ basic constitution.
   2. Dynamical, which give rules for connecting objects and their states.
3. The mathematical principles are that objects of experience has two kinds of magnitude.
   1. Extensive magnitude, i.e., dimensions in space and/or time.
   2. Intensive magnitude, i.e., strength of presence in space and/or time.
4. The dynamical principles are treated separately below.

11. The Dynamical Principles
1. The principle of substance is that in all change of its states, the quantity of matter remains constant.
2. The principle of causality is that all change of state take place in strict conformity to laws of nature.
3. The principle of community is that all substances always reciprocally affect all other
4. The principle of possibility is that whatever conforms to the conditions of intuition (space and time) and understanding (governed by the above principles) is possible.
5. The principle of actuality is that whatever is either the object of sense perception or coheres with objects of sense perception is actual.
6. The principle of necessity is that whatever actual object that coheres with perception according to the conditions of intuition and the understanding is necessary.

12. The Existence of Objects in Space
   1. Kant gives two different proofs of the existence of objects in space.
      2. In the first-edition Fourth Paralogism.
      2. In the second-edition Refutation of Idealism.
   2. The argument of the Paralogism is that objects in space are appearances, and appearances are only presentations in the mind, which themselves are real.
   3. The argument of the Refutation is that objects in space are required to determine the temporal ordering of states of myself.

13. Phenomena and Noumena
   1. The doctrine of the ideality of appearances implies that the spatio-temoral objects of experience are beings of the senses, or “phenomena.”
   2. Beings of the understanding would be “noumena.”
   3. There are two kinds of noumena.
      1. Things in themselves, as the non-sensible aspects of appearances.
      2. Beings which do not in any way appear to us.
   4. Corresponding to the two kinds of noumena are two ways to view them.
      1. Negatively, as setting a limit to human knowledge, which does not extend to things in themselves.
      2. Positively, as providing new objects for the understanding, beyond the thing that appear.
   5. Only the negative sense of noumena is legitimate given the limits of human understanding.

14. Transcendental Dialectic
   1. Human reason engages in fallacious “dialectical” arguments which purport to prove the existence of noumena in the positive sense.
   2. The general argument for such noumena is that they are required to fulfill reason’s quest for completeness of explanation.
   3. Everything found in human experience is “conditioned” in one way or another, and reason is not satisfied until it arrives at an “unconditioned” which stands in need of no other condition.
   4. The noumena are supposed to be of three sorts.
      1. The human soul.
      2. The universe as a whole.
      3. God.

15. The Rational Doctrine of the Soul
   1. The soul as noumenon is claimed to have four properties.
1. Permanence.
2. Simplicity.
3. Unity.
4. Interaction with objects in space.
2. The basis for these claims is the unity of the I which is required for unified experience.
3. However, this unity is merely a condition for experience and not a property of an I construed as a noumenon.

16. The Rational Doctrine of the World
1. The properties of the cosmos, or world-whole are the subject of endless opposition.
2. The dogmatist favors a limited conception of the world, which is satisfactory to reason because it bring completeness and because it serves the purposes of morality and religion.
3. The empiricist favors an unlimited conception of the world, which is satisfactory to reason because it brings with it uniformity.
4. The four conflicts of reason with itself are as follows.
   1. Whether the world is finite or infinite in space and time.
   2. Whether the parts of the world are finitely or infinitely divisible.
   3. Whether the causes in the world terminate in an uncaused cause or do not terminate.
   4. Whether the contingency of the world requires a necessary being or does not require a necessary being.
5. In every case, the conflicts rest on a premise that if a conditioned series of objects of experience is given, then the whole series is given with it.
6. However, the only legitimate claim that can be made in this vein is that the completion of the whole series is set as a task.
7. As a result, the antinomies can be resolved.
   1. The world is neither finite nor infinite in extent or division, but only indefinite.
   2. The series of causes is not initiated by an uncaused cause within the world of phenomena, but it may be initiated by an uncaused cause as a noumenon.
   3. The same holds for a necessary being: none is found within this world, but this does not preclude an noumenal necessary being.
8. Thus, “transcendental freedom” in the initiation of action by human agents is at least possible, as is the existence of God apart from the world.

17. The Rational Doctrine of God
1. The concept of God is that of a “most real being,” a noumenon standing outside the world.
2. There are three arguments for the existence of such a being.
3. Two of the arguments begin with experience.
   1. The physicotheological argument invokes God as to explain the order, purposiveness and beauty experienced in the world.
   2. The cosmological argument invokes God as a necessary being to explain the existence of the world of experience.
4. The ontological argument does not invoke experience at all, but claims that God’s existence follows from the very concept of a most real being.
5. The ontological argument is flawed in one of two ways.
   1. Existence is built into the concept of a most real being, in which case deriving the
existence of a most real being from the concept begs the question.
2. Existence is not built into the concept of a most real being, in which case it cannot be derived at all.
6. The cosmological argument is flawed because it requires the ontological argument to show that a necessary being exists.
7. The physicotheological argument is flawed because only a finite explanation is required to explain the order, purposiveness and beauty of the world.

18. Practical Reason
1. Although there is no “canon” governing the use of reason beyond experience, there is a canon for the use of reason to determine how we should act.
2. We have “practical freedom” if we can do what ought to be done despite our sensuous impulses to the contrary.
3. Practical freedom requires transcendental freedom, which is at least possible for us thought of as noumena.
4. Besides what ought to be done prudentially to obtain happiness, there is a moral law which tells us what ought to be done so as to be worthy of happiness.
5. The ideal of a highest good is that everyone’s degree of happiness be proportional to his worthiness to be happy.
6. The possible realization of this ideal requires that there be a God who is capable of bringing it about, which is the sole justifiable reason to believe God exists.
7. We can have a “rational faith” in God’s existence, which is not objectively based but is a sufficient basis for belief.
8. In addition, we can have a “moral faith” which can be raised to the level of being a kind of “certainty,” but not of the logical variety.