

Chapter 2: Pioneering Philosophers of Mind: Descartes, Locke, and Leibniz

MULTIPLE CHOICE

1. The ideas that young Descartes had at Ulm, which transformed his life and really started him on his vocation as a philosopher and scientist, were primarily about
 - a. the reflex.
 - b. the mind-body dichotomy.
 - c. a method for obtaining knowledge.
 - d. the passions.

ANS: C DIF: Moderate OBJ: Understand Descartes's philosophy.

2. The hydraulically operated mechanical statues at St. Germain were important to Descartes because
 - a. the mythological scenes they represented directed his attention toward important psychological problems.
 - b. they suggested the idea that animal bodies could be understood mechanistically as automata.
 - c. they inspired him to construct some experimental hydraulic models of his own.
 - d. they suggested the idea that blood constantly circulates through the body.

ANS: B DIF: Easy

OBJ: Describe the influences on Descartes's philosophy.

3. Descartes's mathematical invention, which integrated algebra and geometry, is called
 - a. analytic geometry.
 - b. Cartesian analysis.
 - c. differential calculus.

d. dioptric.

ANS: A DIF: Easy OBJ: Understand Descartes's philosophy.

4. The first rule of Descartes's method, providing the equivalent of the geometric axioms, was to

- a. doubt everything.
- b. keep precise records of all observations.
- c. systematically manipulate one variable at a time.
- d. proceed deductively by syllogistic reasoning.

ANS: A DIF: Easy OBJ: Understand Descartes's philosophy.

5. The only "simple natures" Descartes discerned when he applied his method to the analysis of the physical world were the concepts of

- a. subjects and objects.
- b. sensations and perceptions.
- c. minds and bodies.
- d. extension and motion.

ANS: D DIF: Moderate OBJ: Understand Descartes's philosophy.

6. According to Descartes's physics, the entire physical universe is made up of

- a. fire, air, water, and earth.
- b. invisible particles of "fire," invisible particles of "air," and visible particles of material "earth."
- c. material particles separated by void.
- d. several kinds of elementary atoms that could combine to form an almost infinite variety of different compounds.

ANS: B DIF: Moderate OBJ: Understand Descartes's philosophy.

7. In the *Treatise of Man*, Descartes provided mechanistic explanations for all the following functions EXCEPT
- a. reason.
 - b. memory.
 - c. sensation.
 - d. imagination.

ANS: A DIF: Easy OBJ: Understand Descartes's philosophy.

8. In Descartes's theory of the reflex mechanism, stimuli are transmitted to the brain by means of _____, and responses are initiated by _____.
- a. columns of "light" particles; the dispersion of heat to the proper muscle
 - b. hydraulic pressure in a sensory nerve; hydraulic pressure in a motor nerve
 - c. tugs and pulls on filaments through nerves; the flow of animal spirits through the nerves and into the muscles
 - d. hydraulic pressure in the fluid within the nerve; tugs on the filaments within the nerves, connected to the muscles

ANS: C DIF: Difficult OBJ: Understand Descartes's philosophy.

9. Descartes accounted mechanistically for emotional influences on behavior by postulating
- a. currents and "commotions" in the reservoir of animal spirits.
 - b. learned reactions to external stimuli.
 - c. variations in the intensity with which stimuli strike the senses.
 - d. an "emotional" soul.

ANS: A DIF: Easy OBJ: Understand Descartes's philosophy.

10. Descartes hypothesized that the state of _____ occurs when the brain is relatively emptied of animal spirits, so that its nerve fibers are slack and only infrequently capable of transmitting stimulation.
- a. depression
 - b. passion
 - c. reflection and memory
 - d. sleep and dreaming

ANS: D DIF: Easy OBJ: Understand Descartes's philosophy.

11. When Descartes found he could doubt everything except the reality of his doubting itself, he gained immediate reassurance of the
- a. trustworthiness of his senses.
 - b. immortality of his soul.
 - c. reality of his rational mind.
 - d. existence of the material world.

ANS: C DIF: Moderate OBJ: Understand Descartes's philosophy.

12. Descartes believed that concepts such as "unity," "infinity," or "perfection," which cannot be represented by single sensory impressions, were which of the following?
- a. abstractions created out of many different sensory experiences
 - b. innate ideas of the rational soul
 - c. illusions having no basis in reality
 - d. reverberations in nerves continuing after the cessation of sensory impressions

ANS: B DIF: Difficult OBJ: Understand Descartes's philosophy.

13. Descartes believed that the

- a. body usually dominates the mind.
- b. mind usually dominates the body.
- c. body really is the mind.
- d. body and mind interact and mutually influence each other, with neither always dominating.

ANS: D DIF: Moderate OBJ: Understand Descartes's philosophy.

14. Descartes believed that animals were

- a. identical to humans in most essential qualities.
- b. mechanical automata, lacking consciousness.
- c. psychologically similar to human beings, except less complicated.
- d. so different from human beings as to be worthless as scientific subjects.

ANS: B DIF: Moderate OBJ: Understand Descartes's philosophy.

15. Where did Descartes localize the most important interactions between the body and the soul?

- a. throughout the brain
- b. throughout the body
- c. in the pineal gland
- d. nowhere, because they cannot interact in space

ANS: C DIF: Moderate OBJ: Understand Descartes's philosophy.

16. According to Descartes's theory of visual perception, the

- a. mind's conscious perception bears no necessary relationship to the real observed object.

- b. mind's conscious perception is a nearly perfect replica of the real observed object.
- c. relationship between perception and object is inconsequential, so long as mechanical action is initiated.
- d. conscious perception is an inverted, double copy of the observed object.

ANS: B DIF: Difficult OBJ: Understand Descartes's philosophy.

17. Descartes hypothesized that when the pineal gland is moved by eddies and currents in the cerebrospinal fluid that surrounds it,

- a. it causes all the nerves in the brain to be more open to the passage of animal spirits.
- b. the soul becomes conscious of a passion.
- c. the soul becomes conscious of an innate idea.
- d. the body is immediately set into motion.

ANS: B DIF: Difficult OBJ: Understand Descartes's philosophy.

18. Since Descartes's time, research has shown that

- a. his theory of the body's mechanism was prophetically right in most respects.
- b. his mechanistic theories were almost completely nonsense.
- c. his theory of bodily mechanism was wrong in details but highly productive in its general implications.
- d. the body and mind do interact in the middle of the brain.

ANS: C DIF: Moderate OBJ: Understand Descartes's philosophy.

19. According to Galileo, the characteristics of material particles—shape, quantity, and motion—were called

- a. primary qualities.
- b. secondary qualities.
- c. innate qualities.
- d. rational qualities.

ANS: A DIF: Easy OBJ: Recall Galileo's philosophy.

20. Galileo defined secondary qualities as

- a. qualities that do not reside inherently in matter but arise only after the primary qualities impinge on the human senses.
- b. qualities that reside inherently in matter, such as shape, quantity, and motion.
- c. the only two properties of physical phenomena that could not be further analyzed or doubted.
- d. qualities that are inherently innate.

ANS: A DIF: Moderate OBJ: Recall Galileo's philosophy.

21. Legend has it that Descartes did much of his best thinking

- a. in the library.
- b. during long walks on the moors.
- c. in bed.
- d. while debating others.

ANS: C DIF: Easy

OBJ: Describe the influences on Descartes's philosophy.

22. Princess Elizabeth of Bohemia had an important intellectual friendship with

Descartes and, while she was highly impressed by Descartes's writings, she disagreed with him on

- a. how the immaterial mind and the material body interacted.
- b. his theory of doubt.
- c. the importance of the reflex in his theory of mind.
- d. his theory of emotion.

ANS: A DIF: Moderate

OBJ: Identify the similarities and differences between philosophers.

23. Descartes's *Treatise on the Passions of the Soul* (1649) was highly influenced by his correspondence with

- a. Marin Mersenne.
- b. Princess Elizabeth of Bohemia.
- c. Galileo.
- d. William Harvey.

ANS: B DIF: Moderate

OBJ: Describe the influences on Descartes's philosophy.

24. Descartes believed that the passions were the

- a. conscious experiences of the body's emotions.
- b. unconscious experience of the body's emotions.
- c. consciousness of a separation between the mind and body.
- d. body's unconscious reaction to emotions before they became conscious.

ANS: A DIF: Easy OBJ: Understand Descartes's philosophy.

25. When Gottfried Leibniz first read John Locke's *Essay Concerning Human Understanding*, what was his reaction?

- a. He was impressed but felt that Locke's empiricism went too far.

- b. He was impressed but felt that Locke's rationalism went too far.
- c. He was disdainful and felt that Locke's reputation was greatly overrated.
- d. He saw Locke as a natural ally and began a fruitful correspondence with him.

ANS: A DIF: Difficult

OBJ: Identify the similarities and differences between philosophers.

26. Locke's and Leibniz's careers were alike in that both of them were

- a. trained as lawyers.
- b. trained as physicians.
- c. dependent on wealthy patrons.
- d. independently wealthy.

ANS: C DIF: Easy

OBJ: Identify the similarities and differences between philosophers.

27. Who was an early scientist who initiated the practice of bringing together groups of investigators for scientific discussions?

- a. John Locke
- b. William Molyneux
- c. Anthony Ashley Cooper
- d. Robert Boyle

ANS: D DIF: Moderate OBJ: Describe the influences on Locke's philosophy.

28. Locke's initial purpose in writing his *Essay Concerning Human Understanding* was to discover

- a. how to evaluate differing religious doctrines.

- b. what kind of correct knowledge the human mind was and was not capable of acquiring.
- c. what kind of governmental system would produce the greatest general welfare.
- d. what philosophical system was best supported by the new scientific research.

ANS: B DIF: Moderate OBJ: Understand Locke's philosophy.

29. Locke withheld publication of *Two Treatises of Government* and *Essay Concerning Human Understanding* for many years primarily because

- a. he was unable prove his hypotheses.
- b. he felt it would be politically dangerous to publish them.
- c. the Whig party did not support his ideas.
- d. his employer Shaftesbury did not agree with them.

ANS: B DIF: Moderate OBJ: Describe the influences on Locke's philosophy.

30. Locke's *Essay Concerning Human Understanding* asserted that the mind is

- a. furnished with all of its ideas from experience.
- b. like a veined slab of marble.
- c. constantly active.
- d. full of innate ideas.

ANS: A DIF: Moderate OBJ: Understand Locke's philosophy.

31. Locke's Simple Ideas were defined as

- a. ideas based on stupid or misleading associations.
- b. ideas based on numerous combinations of thought.
- c. ideas based exclusively on primary qualities.

d. one's earliest ideas based on elementary sensations such as redness or coldness.

ANS: D DIF: Moderate OBJ: Understand Locke's philosophy.

32. Locke's Complex Ideas were defined as

a. ideas produced when simple ideas are combined by the mind in varying combinations.

b. the resulting thoughts when simple ideas are broken down into their minute details.

c. impressions such as redness, loudness, coldness, or saltiness.

d. specific results of critical thinking and problem solving.

ANS: A DIF: Moderate OBJ: Understand Locke's philosophy.

33. When we recognize the difference (disagreement) between things, for example differentiating something black from something white, Locke would say we are using what type of knowledge?

a. intuitive knowledge

b. simple knowledge

c. complex knowledge

d. demonstrative knowledge

ANS: A DIF: Moderate OBJ: Understand Locke's philosophy.

34. Locke suggested a _____ as a metaphor for the human mind at birth.

a. *tabula rasa* or blank slate

b. mechanical statue

c. veined slab of marble

d. mechanical calculating machine

ANS: A DIF: Easy OBJ: Understand Locke's philosophy.

35. For Locke, the largest amount of human knowledge was of which type?

- a. intuitive
- b. demonstrative
- c. sensitive
- d. practical

ANS: C DIF: Moderate OBJ: Understand Locke's philosophy.

36. For Locke, the primary qualities of objects

- a. truly exist within the objects themselves.
- b. are imposed on objects by our senses.
- c. are contrary to Descartes's "simple natures."
- d. are the foundation of complex ideas.

ANS: A DIF: Moderate OBJ: Understand Locke's philosophy.

37. In Locke's terminology, sensory impressions such as sounds, colors, temperatures, tastes, and odors are called

- a. primary qualities.
- b. secondary qualities.
- c. sensitive qualities.
- d. simple natures.

ANS: B DIF: Moderate OBJ: Understand Locke's philosophy.

38. Locke's version of the Social Contract Theory differed from that of his predecessor Hobbes in which way?

- a. Hobbes saw the contract as a formal written document, whereas for Locke it was

a more informal agreement between the government and the governed.

- b. Locke saw the contract as a formal written document, whereas for Hobbes it was a more informal agreement between the government and the governed.
- c. Locke's version assumed the contract was a more rational choice by the governed, who could break the contract under conditions of severe governmental abuse.
- d. Locke's version assumed that the authority granted to the government by the governed was absolute and had to be obeyed under all circumstances.

ANS: C DIF: Difficult

OBJ: Identify the similarities and differences between philosophers.

39. All of the following are considered members of the "British associationist" tradition of mental philosophy EXCEPT
- a. George Berkeley.
 - b. Richard Busby.
 - c. David Hume.
 - d. David Hartley.

ANS: B DIF: Easy OBJ: Understand Locke's philosophy.

40. The hypothetical question of whether a man who was blind from birth but suddenly granted the gift of sight would immediately be able to distinguish a sphere from a cube without touching them was posed to Locke by_____, whose answer was _____.
- a. Thomas Willis; no he could not
 - b. Gottfried Leibniz; yes he could

- c. Gottfried Leibniz; no he could not
- d. William Molyneux; no he could not

ANS: D DIF: Difficult OBJ: Understand Locke's philosophy.

41. Which two important mathematical discoveries were made by Leibniz as a young man in Paris?

- a. binary arithmetic and the infinitesimal calculus
- b. analytic geometry and the infinitesimal calculus
- c. symbolic logic and functional trigonometry
- d. binary arithmetic and analytic geometry

ANS: A DIF: Moderate OBJ: Identify Leibniz's contributions.

42. Leibniz met and was impressed by the philosopher_____, whose *pantheism* held that_____.

- a. Hume; God is an independent being that controls the universe
- b. Spinoza; God *is* the entire universe
- c. Hume; there is no God
- d. Spinoza; there are many Gods

ANS: B DIF: Difficult OBJ: Describe the influences on Leibniz's philosophy.

43. Which of the following is *least* consistent with Leibniz's conception of the universe?

- a. It is composed of material particles in motion and their interaction with each other.
- b. It is a hierarchically organized organic entity.
- c. Its major features include continuity and change.

d. It was partly inspired by a view through a microscope.

ANS: A DIF: Difficult OBJ: Understand Leibniz's physical theory.

44. Which of the following is NOT part of Leibniz's definition of *monads*?

- a. They are units that contain within themselves directed energies or forces.
- b. They are units that have capacities to perceive and register impressions of the rest of the world.
- c. They are the ultimate units making up the universe.
- d. They are infinitely divisible into ever smaller parts.

ANS: D DIF: Moderate OBJ: Understand Leibniz's physical theory.

45. Leibniz's sentient monads are presumably dominant in _____, while rational monads reside in _____.

- a. plants; higher animals
- b. animals; human beings
- c. everything in the universe; human beings
- d. all plants and animals; God

ANS: B DIF: Moderate OBJ: Identify Leibniz's philosophy.

46. Leibniz defined *apperception* as the

- a. process by which perceptions are accompanied by self-awareness and interpreted in terms of underlying laws and principles.
- b. process by which sensations in consciousness are responded to in light of prior learning and experience.
- c. experiencing of two or more ideas, either simultaneously or in rapid succession.
- d. combination or association of two simpler ideas into a more complex one.

ANS: A DIF: Moderate OBJ: Identify Leibniz's philosophy.

47. Leibniz referred to the rules of arithmetic, the geometrical axioms, and the rules of logic as examples of what he called
- a. necessary truths.
 - b. rational monads.
 - c. primary qualities.
 - d. innate ideas.

ANS: A DIF: Easy OBJ: Identify Leibniz's philosophy.

48. In Leibniz's *New Essays on Human Understanding* he likened his own position to that of _____ and Locke's position to that of _____.
- a. Plato; Socrates
 - b. Aristotle; Socrates
 - c. Aristotle; Plato
 - d. Plato; Aristotle

ANS: D DIF: Moderate OBJ: Comparison of Locke and Leibniz.

49. Leibniz agreed with Locke that "There is nothing in the intellect that was not first in the senses," with the exception of what?
- a. the emotions
 - b. the mind itself
 - c. the bare monads
 - d. imagination

ANS: B DIF: Easy

OBJ: Identify the similarities and differences between philosophers.

50. Leibniz proposed all of the following features of “minute perceptions” EXCEPT

- a. they are characteristic of bare monads.
- b. they can be responsible for unconscious motivational effects.
- c. they are experienced only by animals and humans.
- d. when aggregated in large numbers, they can become conscious.

ANS: C DIF: Moderate OBJ: Identify Leibniz’s philosophy.

51. Which of the following was one of Leibniz’s favorite metaphors for the human mind at birth?

- a. an unwound clock
- b. a blank slate
- c. an architect’s plan
- d. a veined slab of marble

ANS: D DIF: Easy OBJ: Identify Leibniz’s philosophy.

MATCHING

Match the description with the appropriate element of Descartes’s philosophy.

- a. clear yellowish fluid that fills the brain cavities
 - b. conscious awareness of one’s emotions
 - c. ideas that derive from the nature of the thinking soul itself
 - d. properties of physical phenomena that could not be analyzed or doubted
-
- 1. simple natures
 - 2. animal spirits
 - 3. innate ideas
 - 4. passions

1. ANS: D DIF: Moderate OBJ: Understand Descartes's philosophy.
2. ANS: A DIF: Moderate OBJ: Understand Descartes's philosophy.
3. ANS: C DIF: Moderate OBJ: Understand Descartes's philosophy.
4. ANS: B DIF: Moderate OBJ: Understand Descartes's philosophy.

Match the publication with its author.

- a. *An Essay Concerning Human Understanding*
- b. *New Essays on Human Understanding*
- c. *Discourse on Method*

5. Descartes
6. Leibniz
7. Locke

5. ANS: C DIF: Moderate
OBJ: Identify the similarities and differences among philosophers.
6. ANS: B DIF: Moderate
OBJ: Identify the similarities and differences among philosophers.
7. ANS: A DIF: Moderate
OBJ: Identify the similarities and differences among philosophers.

Match the description with the appropriate element of Locke's philosophy.

- a. knowledge obtained through deductive reasoning
 - b. knowledge obtained through patterns of sensory experiences
 - c. knowledge obtained through perceptions that are immediately obvious and true
8. demonstrative knowledge
 9. intuitive knowledge

10. sensitive knowledge

8. ANS: A DIF: Easy OBJ: Understand Locke's philosophy.

9. ANS: C DIF: Easy OBJ: Understand Locke's philosophy.

10. ANS: B DIF: Easy OBJ: Understand Locke's philosophy.

Match the description with the appropriate element of Locke's philosophy.

a. experiences of objects in the external world

b. experiences of the mind's own operations

c. ideas that come from basic sensations or reflections

d. the linking together of similar or contiguously experienced ideas

11. association of ideas

12. reflections

13. sensations

14. simple ideas

11. ANS: D DIF: Moderate OBJ: Understand Locke's philosophy.

12. ANS: B DIF: Moderate OBJ: Understand Locke's philosophy.

13. ANS: A DIF: Moderate OBJ: Understand Locke's philosophy.

14. ANS: E DIF: Moderate OBJ: Understand Locke's philosophy.

Match the achievement with the philosopher.

a. developed analytic geometry

b. developed infinitesimal calculus

c. served as physician to Sir Anthony Ashley Cooper

15. Descartes

16. Leibniz

17. Locke

15. ANS: A DIF: Easy

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

16. ANS: B DIF: Easy

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

17. ANS: C DIF: Easy

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

Match the description with the appropriate element of Leibniz's theory of monads.

- a. form material objects when clustered together
- b. controls and contains the entirety of the universe
- c. possess capacity for simple perception
- d. the soul or mind of human beings

18. bare monads

19. rational monads

20. sentient monads

21. supreme monad

18. ANS: A DIF: Moderate

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

19. ANS: D DIF: Moderate

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

20. ANS: C DIF: Moderate

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

21. ANS: B DIF: Moderate

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

Match the female correspondent with the philosopher.

- a. Lady Damaris Cudworth Masham
- b. Princess Elizabeth of Bohemia
- c. Sophie the Countess Palatine and Sophie Charlotte

22. Descartes

23. Leibniz

24. Locke

22. ANS: B DIF: Difficult

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

23. ANS: C DIF: Difficult

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

24. ANS: A DIF: Difficult

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

Match the philosopher with the term with which he is associated.

- a. Benedict Spinoza
- b. George Berkeley
- c. René Descartes
- d. Thomas Hobbes

25. British associationism

26. interactive dualism

27. pantheism

28. social contract

25. ANS: B DIF: Moderate

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

26. ANS: C DIF: Moderate

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

27. ANS: A DIF: Moderate

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

28. ANS: D DIF: Moderate

OBJ: Describe the influences on the philosophies of Descartes, Leibniz, and Locke.

Match the definition with the philosophical term.

- a. basic units of the universe conceived as energetic and purposeful entities with capacity for awareness
- b. ideas consciously experienced and rationally analyzed in terms of underlying principals and laws
- c. innate principles for analyzing experiences logically and mathematically
- d. extended particles and motion, conceived as the most elementary properties of physical phenomena

29. apperception

30. monads

31. necessary truths

32. simple natures

29. ANS: B DIF: Moderate

OBJ: Understand Descartes's philosophy; Identify Leibniz's philosophy.

30. ANS: A DIF: Moderate

OBJ: Understand Descartes's philosophy; Identify Leibniz's philosophy.

31. ANS: C DIF: Moderate

OBJ: Understand Descartes's philosophy; Identify Leibniz's philosophy.

32. ANS: D DIF: Moderate

OBJ: Understand Descartes's philosophy; Identify Leibniz's philosophy.

Match the analogy, model, or metaphor with the philosopher.

- a. mind as block of veined marble
- b. the inexperienced mind as "white paper void of all characters"
- c. "the soul of beasts is nothing but their blood"

33. Descartes

34. Leibniz

35. Locke

33. ANS: C DIF: Easy

OBJ: Identify the similarities and differences between philosophers.

34. ANS: A DIF: Easy

OBJ: Identify the similarities and differences between philosophers.

35. ANS: B DIF: Easy

OBJ: Identify the similarities and differences between philosophers.

SHORT ANSWER

1. According to Descartes, in what sense are nonhuman animals and human beings similar and different?

ANS:

All animal bodies, including human bodies, could be explained mechanistically in

terms similar to but more complicated than mechanical statues. All nonhuman animals could be fully understood in these mechanistic terms. In the case of human beings, only the body could be explained in mechanical terms, the human soul or mind could not. Descartes understood the human mind and body as separate but interacting entities, a position known as interactive dualism.

DIF: Moderate OBJ: Understand Descartes's philosophy.

2. Describe the different kinds of knowledge outlined by Locke.

ANS:

Intuitive knowledge: perceptions that are immediate and certain, such as that black is different from white.

demonstrative knowledge: derived from logical deductive reasoning starting with intuitively obvious axioms and leading to conclusions that were not originally obvious; exemplified by geometric proofs.

sensitive knowledge: derived from the association of ideas based on sensations from the external empirical world; it is less certainly true than the other kinds because it may be based accidental or misleading associations.

DIF: Easy OBJ: Understand Locke's philosophy.

3. Describe Leibniz's theory of monads and its components.

ANS:

Monads: energetic and purposeful units with some conscious awareness that form the most fundamental component parts of the universe; *bare monads*: the most numerous kind of monads, which have a faint capacity for awareness and when assembled in large numbers make up physical objects; *sentient monads*: have the capacity for con-

scious sensation and perception of material objects and for memory, and form the soul of animals; *rational monads*: the soul or mind of human beings with consciousness capable of apperception; *supreme monad*: the equivalent of God, contains and controls the entirety of the universe.

DIF: Difficult OBJ: Identify Leibniz's philosophy.

4. Describe how the theories of mind of Locke and Leibniz are similar and different.

ANS:

According to Locke, the mind is a blank slate (*tabula rasa*) at birth and human beings gain knowledge through empirical experiences of the world. Leibniz accepted that some knowledge occurs as Locke described but likened the mind at birth not to a blank slate but to a veined block of marble predisposed to respond to a sculptor's chiseling by breaking along certain inherent fault lines. While Locke held that there is nothing in the mind that was not first in the senses, Leibniz added to this: *except the mind itself*. Locke saw the mind as not constantly active, while Leibniz argued that the mind is constantly active.

DIF: Moderate OBJ: Identify the similarities and differences between philosophers.

5. William Molyneux described a hypothetical case of man blind from birth who had learned to distinguish a ball from a cube by the sense of touch. He then posed the question: If suddenly granted vision, would the man be able to tell these two objects apart without touching them? Describe Locke's response to this question and his rationale for his answer.

ANS:

Locke responded no, the man would not be able to distinguish the ball from the cube.

According to Locke, the ideas created by new visual sensations could not be part of the man's complex ideas of a ball and a cube until these new ideas became associated with the older ideas that were based on touch.

DIF: Moderate OBJ: Understand Locke's philosophy.