THINKING

OBJECTIVE 1: Define cognition.
1. Cognition, or ___THINKING___, can be defined as __THE MENTAL ACTIVITY ASSOCIATED WITH PROCESSING, KNOWING, REMEMBERING AND COMMUNICATING____.
2. Scientists who study these mental activities are called ___COGNITIVE_____ ___PSYCHOLOGISTS_____.

OBJECTIVE 2: Describe the roles of categories, hierarchies, definitions, and prototypes in concept formation.
3. People tend to organize specific items into mental groupings called _____CONCEPTS____, and many such groupings often are further organized into _____HIERARCHIES_____.
4. Concepts are typically formed through the development of a best example, or ___PROTOTYPE_____, of a category. People more easily detect ______MALE_______ (male/female) prejudice against ______FEMALE_______ (males/females) than vice versa.

OBJECTIVE 3: Compare algorithms and heuristics as problem-solving strategies, and explain how insight differs from both of them.
5. Humans are especially capable of using their reasoning powers for coping with new situations, and thus for ___PROBLEM_____ ___SOLVING_____.
6. Finding a problem’s solution by trying each possibility is called ____TRIAL_____ AND ____ERROR_____.
7. Logical, methodical, step-by-step procedures for solving problems are called ___ALGORITHMS_________.
8. Simple thinking strategies that provide us with problem-solving shortcuts are referred to as ___HEURISTICS___.
9. When you suddenly realize a problem’s solution, _____INSIGHT_______ has occurred. Research studies show that at such moments the brain displays a burst of activity in the _____RIGHT_____ _____TEMPORAL_______ _____LOBE_______.

OBJECTIVE 4: Contrast confirmation bias and fixation, and explain how they can interfere with effective problem solving.
10. The tendency of people to look for information that verifies their preconceptions is called the _____CONFIRMATION_____ _____BIAS______.
11. It is human nature to seek evidence that ______VERIFIES_______ our ideas more eagerly than to seek evidence that might _____REFUTE_____ them.
12. Not being able to take a new perspective when attempting to solve a problem is referred to as _____FIXATION_____. One example of this obstacle to problem solving is the tendency to repeat solutions that have worked previously; this phenomenon is known as the development of a ______MENTAL_______ _____SET_________.
13. When a person is unable to envision using an object in an atypical way, _____FUNCTIONAL_______ _____FIXEDNESS______ is operating.

OBJECTIVE 5: Contrast the representativeness and availability heuristics, and explain how they can cause us to underestimate or ignore Important Information.
14. People judge how well something matches a particular prototype; this is the _____REPRESENTATIVE_______ _____HEURISTIC_________.
15. When we judge the likelihood of something occurring in terms of how readily it comes to mind, we are using the _____AVAILABILITY_______ _____HEURISTIC_____.

Explain how these two heuristics may lead us to make judgmental errors. USING THESE HEURISTICS OFTEN PREVENTS US FROM PROCESSING OTHER RELEVANT INFORMATION; BECAUSE WE OVERLOOK THIS INFORMATION, WE MAKE JUDGMENTAL ERRORS.

16. (Thinking Critically) Many people fear ___FLYING_____ more than ___DRIVING_______, and ___TERRORISM_____ more than _____ACCIDENTS______, despite the fact that these fears are not supported by death and injury statistics. This type of faulty thinking occurs because we fear ___WHAT OUR ANCESTRAL HISTORY HAS PREPARED US TO FEAR______
   a. _____WHAT WE CANNOT CONTROL______________
   b. _____WHAT WE CANNOT CONTROL______________
   c. _____WHAT IS IMMEDIATE___________________
   d. _____WHAT IS MOST READILY AVAILABLE IN MEMORY___

OBJECTIVE 6: Describe the drawbacks and advantages of overconfidence in decision making.
17. The tendency of people to overestimate the accuracy of their knowledge results in _____OVERCONFIDENCE_____.
18. Overconfidence has _____ADAPTIVE_______ value because self-confident people tend to live _____MORE_______ (more/less) happily and find it _____EASIER_______ (easier/harder) to make tough decisions.
OBJECTIVE 7: Describe how others can use framing to elicit from us the answers they want.

OBJECTIVE 8: Explain how our preexisting beliefs can distort our logic.

OBJECTIVE 9: Describe the remedy for the belief perseverance phenomenon.

OBJECTIVE 10: Describe the smart thinker’s reaction to using intuition to solve problems.

LANGUAGE

OBJECTIVE 11: Describe the basic structural units of a language.

1. The basic sound units of language are its ________PHONEMES______. English has approximately ________40______ of these units. The basic units of sign language are defined by ________HAND______ ________SHAPES_____ and ________MOVEMENTS______.

2. The system by which meaning is derived from morphemes, words, and sentences is the ________SEMANTICS_____ of a language.

3. The system of rules we use to combine words into grammatically sensible sentences is called ________SYNTAX______.

OBJECTIVE 12: Trace the course of language acquisition from the babbling stage through the two-word stage.

4. The system by which meaning is derived from morphemes, words, and sentences is the ________SEMANTICS_____ of a language.

5. The system of rules we use to combine words into grammatically sensible sentences is called ________SYNTAX______.

6. By ________4______ months of age, babies can read lips and discriminate speech sounds. This marks the beginning of their ______RECEPTIVE______ ______LANGUAGE______, their ability to comprehend speech. This ability begins to mature before their ______PRODUCTIVE______ ______LANGUAGE______, or ability to produce words.

7. The first stage of language development, in which children spontaneously utter different sounds, is the ______BABBLING______ stage. This stage typically begins at about ________4______ months of age. The sounds children make during this stage ______DO NOT______ (do/do not) include only the phonemes of the language that they hear.

8. Deaf infants ________DO_______ (do/do not) babble. Many natural babbling sounds are ______CONSONANT______ - ______VOWEL______ pairs formed by ______BUNCHING THE TONGUE IN FRONT OF THE MOUTH______.

9. By about ________10______ months of age, infant babbling begins to resemble the household language. At about the same time, the ability to perceive phoneme differences is ______LOST______ (lost/acquired).

10. During the second stage, called the ______ONE______ - ______WORD______ stage, children convey complete thoughts using single words. This stage begins at about ________4______ year(s) of age.

11. During the ________TWO______ - ______WORD______ stage children speak in sentences containing mostly nouns and verbs. This type of speech is called ______TELEGRAPHIC______ speech.

12. After this stage, children quickly began to utter longer phrases that ______DO______ (do/do not) follow the rules of syntax.
OBJECTIVE 13: Discuss Skinner’s and Chomsky’s contributions to the nature-nurture debate over how children acquire language, and explain how statistical learning and critical periods are important concepts in children’s language learning.

13. Skinner believed that language development follows the general principles of learning, including ___ASSOCIATION____, ___IMITATION____, and ___REINFORCEMENT____. When there is minimal reinforcement for speaking, as is the case for hearing children whose parents are _____DEAF_______, the learning of spoken language proceeds ___MORE SLOWLY____ (more slowly/at a normal pace).

14. Other theorists believe that humans are biologically predisposed to learn language. One such theorist is _____CHOMSKY_____, who believes that we are all born with a _____LANGUAGE____ _____ACQUISITION____ ____DEVICE____ in which _____GRAMMAR____ switches are thrown as children experience their language. This theorist contends that all human languages have the same grammatical building blocks, which suggests that there is a ___UNIVERSAL____ _____GRAMMAR_____.

15. Specific phonemes, morphemes, words, and sentences make up what Chomsky calls the ____SURFACE____ ____STRUCTURE____ of a language. The underlying meaning of these components of a language make up its ____DEEP____ ____STRUCTURE______. Thus, using multiple levels of understanding language development, ______GENES____ design the mechanisms and ___EXPERIENCE____ modifies the brain.

Give several examples of linguistic behavior in children that support the argument that humans are biologically predisposed to acquire language.

THE RATE AT WHICH CHILDREN ACQUIRE VOCABULARY AND GRAMMAR IS TOO RAPID TO BE EXPLAINED SOLELY BY LEARNING. CHILDREN CREATE SENTENCES THAT THEY HAVE NEVER HEARD AND, THEREFORE, COULD NOT BE IMITATING. CHILDREN LEARN GRAMMATICAL RULES IN A PREDICTABLE ORDER. CHILDREN’S LINGUISTIC ERRORS ARE OFTEN LOGICAL OVEREXTENSIONS OF GRAMMATICAL RULES.

16. Research by Jenny Saffran has demonstrated that even before ___1______ year(s) of age, infants are able to discern ___WORD_______ ____BREAKS_______ by analyzing which syllables most often go together.

17. Research studies of infants’ knack for soaking up language suggest that babies come with a built-in readiness to learn ___GRAMMATICAL____ ____RULES_______.

18. This ability for ___STATISTICAL____ ____ANALYSIS____ is not lifelong. Childhood seems to represent a ____CRITICAL____ ____PERIOD____ for mastering certain aspects of language. Those who learn a second language as adults usually speak it with the ___ACCENT____ of their first language. Moreover, they typically show ___POORER____ (poorer/better) mastery of the ___GRAMMAR_______ of the second language.

19. The window for learning language gradually begins to close after age ___7____. When a young brain doesn’t learn any language, its language-learning capacity ___NEVER____ (never/may still) fully develops.

20. Considering the two theories together, we can say that although we are born with a readiness to learn language, ___EXPERIENCE____ is also important, as shown in linguistically stunted children who have been isolated from language during the ____CRITICAL____ ____PERIOD____ for its acquisition.

THINKING AND LANGUAGE

OBJECTIVE 14: Summarize Whorf’s linguistic determinism hypothesis, and comment on its standing in contemporary psychology.

1. According to the ___LINGUISTIC____ ____DETERMINISM____ hypothesis, language shapes our thinking. The linguist who proposed this hypothesis is _____WHORF_____.

2. Many people who are bilingual report feeling a different sense of ___SELF_______, depending on which language they are using. There are an estimated _____6000_____ languages in the world today.

3. In several studies, researchers have found that using the pronoun “he” (instead of “he or she”) ___DOES_______ (does/does not) influence people’s thoughts concerning gender.

4. Bilingual children, who learn to inhibit one language while using their own language, are better able to inhibit their ___ATTENTION____ to irrelevant information. This has been called the ___BILINGUAL____ ____ADVANTAGE____.

5. One study of Canadian children found that English-speaking children who were ___IMMERSED____ in French had higher ___APTITUDE____ scores and math scores than control children.

OBJECTIVE 15: Discuss the value of thinking in Images.

6. It appears that thinking ___CAN____ (can/cannot) occur without the use of language. Athletes often supplement physical with ___MENTAL____ practice.

7. In one study of psychology students preparing for a midterm exam, the greatest benefits were achieved by those who visualized themselves ___STUDYING EFFECTIVELY____ (receiving a high grade/studying effectively).

Summarize the probable relationship between thinking and language.

THE RELATIONSHIP IS PROBABLY A TWO-WAY ONE: THE LINGUISTIC DETERMINISM HYPOTHESIS SUGGESTS THAT
LANGUAGE HELPS SHAPE THOUGHT; THAT WORDS COME INTO LANGUAGE TO EXPRESS NEW IDEAS INDICATES THAT THOUGHT ALSO SHAPES LANGUAGE.