

isolate the assumptions underlying an argument, and to distinguish what strengthens an argument from what weakens it.

The reading comprehension questions following each passage are not arranged in order of difficulty. They are arranged to reflect the way the passage's content is organized. A question based on information found at the beginning of the passage generally will come before a question based on information at the passage's end.

Testing Tactics

TACTIC

1 First Read the Question, Then Read the Passage

In responding to reading comprehension passages on the GRE, you often will have to consider more material than can fit conveniently on a single screen. You will confront a split screen similar to the one on this page. On one-half of the screen you will see the question you must answer; on the other you will see a segment of the passage under consideration. You will have to scroll through the passage in order to read the text in its entirety.

The diagram shows a split-screen interface with two panes. The left pane contains the following text:

Both societies are territorial: they occupy a particular home range, which they defend against intruders. Likewise, both are cooperative: (40) members organize themselves into working groups that observe a clearly-defined division of labor. In addition, members of both groups can convey to each other a range of (45) basic emotions and personal information: animosity, fright, hunger, rank within a particular caste, and ability to reproduce. Wilson readily concedes that, from a specialist's perspective, such a likeness (50) may at first appear superficial, even unscientifically glib. Nonetheless, in this eminent scholar's judgment, "It is out of such deliberate oversimplification that the beginnings of a general theory are made."

The right pane contains the following question and answer choices:

Which of the following statements best describes the organization of the author's discussion of the importance of the termites/macaque comparison in the development of a unified science of sociobiology?

- ☐ He provides an example of a comparison and then rejects its implications.
- ☐ He concedes that current data are insufficient and modifies his initial assertion of their importance.
- ☐ He acknowledges hypothetical objections to the comparison, but concludes by reaffirming its significance.
- ☐ He cites critical appraisals of the comparison, but refrains from making an appraisal of his own.
- ☐ He notes an ambiguity in the comparison, but finally concedes its validity.

Click on your choice.

Under these conditions, clearly only one tactic works: first read the question, then read the passage.

It is particularly important to follow this tactic when you are dealing with the logical reasoning questions on the GRE. You must look at the question before you look at the argument.

Rather than jumping in blindly and analyzing each and every aspect of the argument—assumptions, central point, evidence, further application, logical flaws—do no more work than necessary. Look at the question stem. Then examine the argument. Know what aspect of the argument you are to concentrate on, and focus on it. You will save time and effort.

The logical reasoning reading question that follows consists of a short passage followed by the question, "Which of the following best serves as an assumption that would make the argument above logically correct?" If you read the question before you read the passage, you will know that, as presented, the argument is faulty. As a result, you will be looking for the flaw as you read the passage and may already realize what's wrong before reading through the five answer choices. If you read the passage first, you may not catch the subtle flaw, and you may find the conclusion perfectly reasonable. Then when you read the question, and learn that the argument was not logically correct, you will be forced to go back and reread the passage, wasting valuable time.



Caution

Read only the question itself—do not read the answer choices before reading the passage. Doing so will confuse you and waste time.

In order to save \$500,000 in this year's budget, the city council voted to freeze the salaries of its school building inspectors. This shortsighted decision is yet another example of the council's being penny wise and pound foolish. The cursory inspections that will result from this action will cause many structural defects to go undetected, resulting in millions more dollars being spent on repairs in the future.

EXAMPLE

In order for his argument to be logically correct, the author of the above argument used which of the following statements as an unstated underlying assumption?

- (A) City inspectors are already overpaid and so the wage freeze is warranted.
- (B) The city council cares less about the safety of the school children than it does about saving money.
- (C) If they do not receive an increase in their wages, school inspectors will become lax in performing their jobs.
- (D) The council does not feel that cursory inspections will necessarily result in defects going undetected.
- (E) The council will not authorize repairs in the future, so it will never have to incur the extra costs.

The passage attempts to justify the conclusion that the city will eventually have to pay much more than it is now saving. Having first read the question, you were on the lookout for a flaw in the passage's logic (the passage's failure to state an underlying assumption). Therefore, you probably picked up the subtle shift from "freeze the salaries" in the first sentence to perform "cursory inspections" in the third sentence. If you did, you might have said to yourself, "The fact that the wages of the inspectors are not being raised does not necessarily mean that they will retaliate by rendering poorer service." This then is the gap in the passage's logic. To justify the conclusion presented, you need to assume that freezing salaries will result in cursory or slipshod inspections; and this is precisely what Choice C says.

In the preceding example, none of the other choices is an assumption upon which the argument depends. You can read and analyze each of the other choices before eliminating it, but that takes time. It is always better if you can anticipate the correct choice.

READING COMPREHENSION STRATEGIES

1. Read the question carefully, so that you are sure you understand what it is asking. Decide whether it is asking about a specific, readily identifiable detail within the passage, or whether it is asking about the passage as a whole. Note any key words in the question that may help you spot where the answer may be found.
2. Next, turn to the passage. Read as rapidly as you can with understanding, but do not force yourself. Do not worry about the time element. If you worry about not finishing the test, you will begin to take shortcuts and miss the correct answer in your haste.
3. As you read the opening sentences, try to anticipate what the passage will be about. Whom or what is the author talking about? What, in other words, is the *topic* of this passage?
4. As you scroll through the passage, think about what kind of writing this is. What is the author trying to do?

Is the author trying to *explain* some aspect of the topic?

Is the author trying to *describe* some aspect of the topic?

Is the author trying to *argue* or debate some aspect of the topic?

What does the author feel about this topic? What audience is the author addressing here? Answering these questions will give you a sense of the passage as a whole.

5. Use your scratch paper intelligently. Take brief notes of important words or phrases in different paragraphs so that you can scroll back to them quickly when you want to verify an answer choice. You may also want to note key words in question stems (words like EXCEPT and LEAST, which the test-makers capitalize for emphasis, and that restrict your answer choice).
6. Your first scrolling through the passage should give you a general impression of the scope of the passage and of the location of its major subdivisions. In order to answer the question properly, **you must go back to the passage to verify your answer choice.** Do not rely on your memory. Above all, do not rely on anything you may have learned from your reading or courses about the topic of this passage. Base your answer on what this passage says, not on what you know from other sources.

TACTIC

2

Learn to Spot the Major Reading Question Types

It helps to familiarize yourself with the major types of reading questions on the test. If you can recognize just what a given question is asking for, you will be better able to tell which reading tactic to apply.

Here are seven categories of reading questions you are likely to face:

1. **Main Idea** Questions that test your ability to find the central thought of a passage or to judge its significance often take one of the following forms:

The main point of the passage is to...

The passage is primarily concerned with...

The author's primary purpose in this passage is to...

The chief theme of the passage can best be described as...

Which of the following titles best states the central idea of the passage?

Which of the following statements best expresses the main idea of the passage?

2. **Finding Specific Details** Questions that test your ability to understand what the author states *explicitly* are often worded:

According to the author,...

The author states all of the following EXCEPT...

According to the passage, which of the following is true of the...

The passage supplies information that would answer which of the following questions?

Which of the following statements is (are) best supported by the passage?

Which of the following is NOT cited in the passage as evidence of...?

3. **Drawing Inferences** Questions that test your ability to go beyond the author's explicit statements and see what these statements imply may be worded:

It can be inferred from the passage that...

The author implies that...

The passage suggests that...

Which of the following statements about...can be inferred from the passage?

4. **Application to Other Situations** (These are logical reasoning questions.) Questions that test your ability to recognize how the author's ideas might apply to other situations often are worded:

With which of the following statements would the author of the passage be most likely to agree?

With which of the following aphorisms would the author be in strongest agreement?

The author's argument would be most weakened by the discovery of which of the following?

The author's contention would be most clearly strengthened if which of the following were found to be true?

Which of the following examples could best be substituted for the author's example of...?

Which of the following statements would be most likely to begin the paragraph immediately following the passage?

The author is most probably addressing which of the following audiences?

5. **Tone/Attitude** Questions that test your ability to sense an author's emotional state often take the form:

The author's attitude toward the problem can best be described as...

The author regards that idea that...with...

The author's tone in the passage is that of a person attempting to...

Which of the following best describes the author's tone in the passage?

6. **Technique** Questions that test your ability to recognize a passage's method of organization or technique often are worded:

Which of the following best describes the development of this passage?
 In presenting the argument, the author does all of the following EXCEPT...
 The relationship between the second paragraph and the first paragraph can best be described as...
 In the passage, the author makes the central point primarily by...
 The organization of the passage can best be described as...

7. **Determining the Meaning of Words from Their Context** Questions that test your ability to work out the meaning of unfamiliar words from their context often are worded:

As it is used in the passage, the term...can best be described as...
 The phrase...is used in the passage to mean that...
 As used by the author, the term...refers to...
 The author uses the phrase...to describe...

TACTIC

3

When Asked to Find the Main Idea, Be Sure to Check the Opening and Summary Sentences of Each Paragraph

The opening and closing sentences of a paragraph are key sentences for you to read. They can serve as guideposts, pointing out the author's main idea.

When you are asked to determine a passage's main idea, *always* check the opening and summary sentences of each paragraph. Authors typically provide readers with a sentence that expresses a paragraph's main idea succinctly. Although such *topic sentences* may appear anywhere in the paragraph, readers customarily look for them in the opening or closing sentences.

Note that in GRE reading passages topic sentences are sometimes implied rather than stated directly. If you cannot find a topic sentence, ask yourself these questions:

1. Who or what is this passage about?
 (The subject of the passage can be a *person*, *place*, or *thing*. It can be something abstract, such as an *idea*. It can even be a *process*, or something in motion, for which no single-word synonym exists.)
2. What aspect of this subject is the author talking about?
3. What is the author trying to get across about this aspect of the subject?
 (Decide the most important thing that is being said about the subject. Either the subject must be *doing* something, or something is *being done* to it.)

Read the following natural science passage and apply this tactic.

According to Wilson¹, only when we are able to apply the same parameters and mathematical principles to weighing both troops of rhesus macaques and termite colonies will a unified science of sociobiology finally exist. While recognizing that many of his colleagues question such
 (5) an outcome, Wilson, one of sociobiology's leading proponents, finds himself simultaneously more and more struck by the functional similarities

that characterize both insect and vertebrate societies and less concerned with the structural differences that divide them to such an apparently irreconcilable degree. Thus, he freely compares termites and macaques, (10) pointing out numerous likenesses between them. Both societies are territorial: they occupy a particular home range, which they defend against intruders. Likewise, both are cooperative: members organize themselves into working groups that observe a clearly-defined division of labor. In addition, members of both groups can convey to each other a range of (15) basic emotions and personal information: animosity, fright, hunger, rank within a particular caste, and ability to reproduce. Wilson readily concedes that, from a specialist's perspective, such a likeness may at first appear superficial, even unscientifically glib. Nonetheless, in this eminent scholar's judgment, "it is out of such deliberate oversimplification that the (20) beginnings of a general theory are made."

¹Edwin O. Wilson, Harvard professor and author of *Sociobiology*.

Now look at a typical main idea question on this passage.

EXAMPLE

Which of the following best summarizes the author's main point?

- (A) Facile and simplistic comparisons of animal societies could damage the prospects for the establishment of a unified science of sociobiology.
- (B) It is necessary to study both biology and sociology in order to appreciate how animals as different as termites and rhesus macaques can be said to resemble each other.
- (C) The majority of animal species arrange themselves in societies whose patterns of group behavior resemble those of human societies.
- (D) It is worthwhile noting that animals as dissimilar as termites and rhesus monkeys observe certain analogous and predictable behavior patterns.
- (E) An analysis of the ways in which insect and vertebrate societies resemble one another could supply the foundation for a unified science of sociobiology.

Look at the opening and summary sentences of the passage: "only when we are able to apply the same parameters and mathematical principles to weighing both troops of rhesus macaques and termite colonies will a unified science of sociobiology finally exist...it is out of such deliberate oversimplification that the beginnings of a general theory are made." First, is there a person, place, thing, idea, or process that is common to both sentences? Are there any words in the last sentence that repeat something in the first? *A general theory* repeats the idea of *a unified science* of sociobiology. The paragraph's subject seems to be the unified science of sociobiology. Note as well the words pointing to expectations for the future — *will...finally exist, beginnings*. The tone of both sentences appears positive: when certain conditions are met, then, in Wilson's view, a specific result will follow — we will have a unified science or general theory of sociobiology. This result, however, is not guaranteed; it can come about only if the conditions are met.

Now turn to the answer choices. What does Choice A say about a unified science of sociobiology? It states some things could make it less likely, not more likely,

to come about. Choice A is incorrect; it contradicts the passage's sense that a unified science of sociobiology is a *likely* outcome. Choices B, C, and D also may be incorrect: not one of them mentions a unified science of sociobiology. On closer inspection, Choice B proves incorrect: it makes an unsupported statement that one needs biological and sociological education to understand the resemblances between insects and vertebrates. Choice C also proves incorrect: it goes far beyond what the passage actually states. Where the passage speaks in terms of termites and rhesus macaques, Choice C speaks in terms of the *majority* of animal species and extends the comparison to include humans as well. Choice D, while factually correct according to the passage, is incorrect because it is too narrow in scope. It ignores the author's main point; it fails to include Wilson's interest in the possibility that a study of such similar patterns of behavior might lead to a general theory of sociobiology. The correct answer is Choice E. It is the only statement that speaks of a unified science of sociobiology as a likely possibility.

TACTIC

4

When Asked to Choose a Title, Watch Out for Choices That Are Too Specific or Too Broad

A paragraph has been defined as a group of sentences revolving around a central theme. An appropriate title for a paragraph, therefore, must express this central theme that each of the sentences in the paragraph develops. It should be neither too broad nor too narrow in scope; it should be specific and yet comprehensive enough to include all the essential ideas presented by the sentences. A good title for a passage of two or more paragraphs should express the thoughts of ALL the paragraphs.

When you are trying to select the best title for a passage, watch out for words that come straight out of the passage. They may not always be your best choice.

This second question on the sociobiology passage is a title question. Note how it resembles questions on the passage's purpose or main idea.

EXAMPLE

Which of the following is the best title for the passage?

- (A) Deceptive Comparisons: Oversimplification in Biological Research
- (B) An Uncanny Likeness: Termites and Rhesus Macaques
- (C) Structural Dissimilarities Between Insects and Vertebrates
- (D) Arguments Against a Science of Sociobiology
- (E) Sociobiology: Intimations of a General Theory

Choice A is incorrect: it is at once too narrow and too broad. It is too narrow in that the passage refers to *oversimplification* only in passing; it does not have oversimplification as its subject. It is too broad in that the passage emphasizes sociobiology, not the whole realm of biological research. It is also misleading; the passage never asserts that the deliberate oversimplification of the comparison between termites and macaques is intended to deceive.

Choice B is incorrect: it is too narrow. True, the author discusses the resemblance between termite and macaque societies; however, this likeness is not his subject. He

discusses it to provide an example of the sort of comparison that may lay the groundwork for a potential science of sociobiology.

Choice C is also incorrect because it is not inclusive enough. It fails to mention the potential science of sociobiology. In addition, while the passage refers to *structural differences* between insect and vertebrate societies, it stresses structural similarities, not structural dissimilarities.

Choices D and E both mention the theory of sociobiology. Which is the better title for the piece? Clearly, Choice E: the author is not arguing against the potential science of sociobiology; he is reporting Wilson's opinions concerning the likelihood of sociobiology's emergence as a unified science. Thus, he finds in the termite-macaque comparison *intimations* or hints of an incipient general theory.

TACTIC When Asked to Determine Questions of Attitude, Mood, or Tone, Look for Words That Convey Emotion, Express Values, or Paint Pictures

5

In determining the attitude, mood, or tone of an author, examine the specific diction used. Is the author using adjectives to describe the subject? If so, are they words like *fragrant*, *tranquil*, *magnanimous* — words with positive connotations? Or are they words like *fetid*, *ruffled*, *stingy* — words with negative connotations?

When we speak, our tone of voice conveys our mood — frustrated, cheerful, critical, gloomy, angry. When we write, our images and descriptive phrases get our feelings across.

The next model question on the Wilson passage is an attitude question. Note the range of feelings in the answer choices.

EXAMPLE

According to the author, Wilson's attitude toward the prospect of a unified theory in sociobiology can best be characterized as which of the following?

- (A) Unconditional enthusiasm
- (B) Cautious optimism
- (C) Unbiased objectivity
- (D) Resigned acquiescence
- (E) Strong displeasure

How does Wilson feel about the possibility of a unified theory of sociobiology? The answer choices range from actively negative (*strong displeasure*) to actively positive (*unconditional enthusiasm*), with passively negative (*resigned acquiescence*), neutral (*unbiased objectivity*), and guardedly positive (*cautious optimism*) in between.

Wilson's attitude toward the possibility of a unified theory of sociobiology is implicit in the author's choice of words. It is clear that Wilson views this possibility positively; the whole thrust of his argument is that the current studies of the similarities between insect and vertebrate societies could mark the beginnings of such a unified theory and that the specialist should not dismiss these studies as glib or simpleminded. Note in the second sentence how the author describes Wilson as a

leading proponent or champion of sociobiology, someone whose feelings about the field are by definition positive.

Wilson is certainly not unhappy or *strongly displeased* with this potential unified theory, nor is he merely long-suffering or *resigned* to it. Similarly, he is not *unbiased* and *objective* about it; he actively involves himself in arguing the case for sociobiology. Thus, you can eliminate Choices C, D, and E. But how do you decide between the two positive terms, *enthusiasm* and *optimism*, Choice A and Choice B? To decide between them, you must look carefully at the adjectives modifying them. Is Wilson's enthusiasm unqualified or *unconditional*? You may think so, but look again. The opening sentence states a basic condition that must be met before there can be a unified science of sociobiology: the same parameters and mathematical principles must be used to analyze insect and vertebrate societies. Though a proponent of sociobiology, Wilson is first and foremost a scientist, one who tests hypotheses and comes to logical conclusions about them. *Unconditional enthusiasm* seems to overstate his attitude.

Choice A appears incorrect. What of Choice B? Is Wilson's optimism *cautious* or *guarded*? Yes. According to the passage, Wilson is aware that specialists may well find fault with the sociobiologist's conclusions; the passage uses terms that convey values, first the negative "superficial, even unscientifically glib" to suggest the specialist's negative attitude toward sociobiology, then the positive "deliberate" to convey Wilson's own more positive response. The correct answer is Choice B.

TACTIC

6

When Asked About Specific Details in the Passage, Spot Key Words in the Question and Scan the Passage to Find Them (or Their Synonyms)

In developing the main idea of a passage, a writer will make statements to support his or her point. To answer questions about such supporting details, you *must* find a word or group of words in the passage supporting your choice of answer. The words "according to the passage" or "according to the author" should focus your attention on what the passage explicitly states. Do not be misled into choosing an answer (even one that makes good sense) if you cannot find it supported by the text.

Detail questions often ask about a particular phrase or line. In such cases, use the following technique:

1. Look for key words (nouns or verbs) in the answer choices.
2. Scroll through the passage, looking for those key words or their synonyms. (This is *scanning*. It is what you do when you look up someone's number in the phone directory.)
3. When you find a key word or its synonym in a sentence, reread that sentence to make sure the test makers haven't used the original wording to mislead you.

Read the following brief passage and apply this tactic.

What is involved in the process of visual recognition? First, like computer data, visual memories of an object must be stored; then, a mechanism must exist for them to be retrieved. But how does this process work?

Line The eye triggers the nerves into action. This neural activity constructs a
(5) picture in the brain's memory system, an internal image of the object

observed. When the eye once again confronts that object, the object is compared with its internal image; if the two images match, recognition takes place.

- Among psychologists, the question as to whether visual recognition is
- (10) a parallel, single-step operation or a sequential, step-by-step one is the subject of much debate. Gestalt psychologists contend that objects are perceived as wholes in a parallel operation: the internal image is matched with the retinal impression in one single step. Psychologists of other schools, however, suggest the opposite, maintaining that the individual
 - (15) features of an object are matched serially with the features of its internal image. Some experiments have demonstrated that the more well-known an object is, the more holistic its internal image becomes, and the more parallel the process of recognition tends to be. Nonetheless, the bulk of the evidence appears to uphold the serial hypothesis, at least for simple
 - (20) objects that are relatively unfamiliar to the viewer.

Now look at the following question on a specific detail in the passage.

EXAMPLE

According to the passage, psychologists of the Gestalt school assume which of the following about the process of visual recognition?

Select *all* that apply.

- ☐ A The image an object makes on the retina is exactly the same as its internal image.
- ☐ B The mind recognizes a given object as a whole; it has no need to analyze the object's constituent parts individually.
- ☐ C The process of matching an object with its internal image takes place in a single step.

You can arrive at the correct answer to this question by elimination.

First, quickly scan the passage looking for the key word *Gestalt*. The sentence mentioning Gestalt psychologists states they maintain that objects are recognized as wholes in a parallel procedure. The sentence immediately preceding defines a parallel procedure as one that takes only one step.

Now examine the statements. Do Gestalt psychologists maintain that an object's retinal image is exactly the same as its internal image? Statement A is unsupported by the passage.

Statement B is supported by the passage: lines 11–12 indicate that Gestalt psychologists believe objects are recognized as wholes.

Statement C is supported by the passage: lines 12–13 indicate that Gestalt psychologists believe matching is a parallel process that occurs in one step.

Choices A, B, and C are all correct.

Note how necessary it is to point to specific lines in the passage when you answer questions on specific details.

TACTIC

7

When Asked to Make Inferences, Base Your Answers on What the Passage Implies, Not What It States Directly

In *Language in Thought and Action*, S. I. Hayakawa defines an inference as “a statement about the unknown made on the basis of the known.”

Inference questions require you to use your own judgment. You must not take anything directly stated by the author as an inference. Instead, you must look for clues in the passage that you can use in deriving your own conclusion. You should choose as your answer a statement that is a logical development of the information the author has provided.

Try this relatively easy inference question, based on the previous passage about visual recognition.

EXAMPLE

One can infer from the passage that, in visual recognition, the process of matching

- (A) requires neural inactivity
- (B) cannot take place if an attribute of a familiar object has been altered in some way
- (C) cannot occur when the observer looks at an object for the very first time
- (D) has now been proven to necessitate both serial and parallel processes
- (E) can only occur when the brain receives a retinal image as a single unit

Go through the answer choices, eliminating any choices that obviously contradict what the passage states or implies. Remember that in answering inference questions you must go beyond the obvious, beyond what the authors explicitly state, to look for logical implications of what they say.

Choice A is incorrect. Nothing in the passage suggests that the matching process requires or demands neural inactivity. Rather, the entire process of visual recognition, including the matching of images, requires neural *activity*.

Choice D is incorrect. It is clear from the passage that the matching process is not fully understood; nothing yet has been absolutely *proven*. The weight of the evidence *seems* to support the serial hypothesis, but controversy still surrounds the entire question.

Choice E is incorrect. It can be eliminated because it directly contradicts information in the passage stating that recognition most likely is a serial or step-by-step process rather than a parallel one receiving an image as a single unit.

Choices B and C are left. Which is a possible inference? Choice C seems a possible inference. Although the author never says so, it seems logical that you could not match an object if you had never seen it before. After all, if you had never seen the object before, you would have no prior internal image of it and would have nothing with which to match it. What of Choice B? Nothing in the passage mentions altering any attributes or features of a familiar object. Therefore, *on the basis of the passage* you have no way to deduce whether matching would or would not be

possible if such a change took place. There is not enough information in the passage to justify Choice B as an inference. The correct answer is Choice C.

Another, more difficult inference question is based on the previous excerpt reviewing Wilson's *Sociobiology*. Review the passage briefly and see how you do with a question that very few of the examinees would have answered correctly.

According to Wilson, only when we are able to apply the same parameters and mathematical principles to weighing both troops of rhesus macaques and termite colonies will a unified science of sociobiology finally exist. While recognizing that many of his colleagues question such an outcome, Wilson, one of sociobiology's leading proponents, finds himself simultaneously more and more struck by the functional similarities that characterize both insect and vertebrate societies and less concerned with the structural differences that divide them to such an apparently irreconcilable degree. Thus, he freely compares termites and macaques, pointing out numerous likenesses between them. Both societies are territorial: they occupy a particular home range, which they defend against intruders. Likewise, both are cooperative: members organize themselves into working groups that observe a clearly-defined division of labor. In addition, members of both groups can convey to each other a range of basic emotions and personal information: animosity, fright, hunger, rank within a particular caste, and ability to reproduce. Wilson readily concedes that, from a specialist's perspective, such a likeness may at first appear superficial, even unscientifically glib. Nonetheless, in this eminent scholar's judgment, "it is out of such deliberate oversimplification that the beginnings of a general theory are made."

EXAMPLE

In analyzing insect and vertebrate societies, the passage suggests which of the following?

- (A) A clearly-defined division of labor is a distinguishing feature of most insect and vertebrate societies.
- (B) The caste structures of insect and vertebrate societies share certain likenesses.
- (C) Most insect and vertebrate societies utilize cooperative groups to hold and defend their home range.
- (D) The system of communication employed by members of insect societies resembles the system that members of vertebrate societies follow.
- (E) Major structural differences exist between insect and vertebrate societies.

Why would most examinees answer this question incorrectly? The reason is simple: it is easy to confuse statements made about specific insect and vertebrate societies with statements made about insect and vertebrate societies in general. In this passage, in the fourth sentence, the author switches from talking about Wilson's views

of insect and vertebrate societies in general and refers to his comments on termites and macaques in specific.

Go through the answer choices one by one. Does the passage suggest that a clearly-defined division of labor distinguishes *most* insect and vertebrate societies? No. It merely states that, according to Wilson, a clearcut division of labor is a characteristic of termite and rhesus macaque societies. Choice A is incorrect: you cannot justify leaping from a single type of insect (*termites*) and a single type of vertebrate (*rhesus macaques*) to most insects and most vertebrates.

Does the passage suggest that the caste structure of insect societies shares certain likenesses with that of their counterparts in vertebrate societies? No. It merely states that, according to Wilson, termites and macaques both can communicate rank within a particular caste. Choice B is incorrect. You cannot assume that the caste structure of insect societies is similar to the caste structure of vertebrate societies just because termites and rhesus macaques both have some way to communicate caste status or rank.

Does the passage suggest that *most* insect and vertebrate societies form cooperative groups in order to hold and defend their home range or territory? No. It merely states that termites and macaques organize themselves into cooperative groups, and that both species occupy and defend territories. Choice C is incorrect: again, you cannot justify leaping from termites and rhesus macaques to *most* insects and *most* vertebrates.

Does the passage suggest that the system of communication employed by members of insect societies resembles that employed by members of vertebrate societies? No. It merely states that communication among termites and macaques serves similar ends; it says nothing about the specific systems of communication they use, nor about those systems of communication used by other insects and vertebrates. Choice D is incorrect.

The correct answer is Choice E. In the passage, the author states that Wilson has grown less impressed "with the structural differences that divide them (i.e., insect and vertebrate societies) to such an apparently irreconcilable degree." This suggests that, even though Wilson may be unimpressed with them, these differences exist and are *major*.

TACTIC



When Asked to Apply Ideas from the Passage to a New Situation, Put Yourself in the Author's Place

GRE application questions require you to do three things:

1. *Reason* — If X is true, then Y must also be true.
2. *Perceive Feelings* — If the author feels this way about subject A, he probably feels a certain way about subject B.
3. *Sense a Larger Structure* — This passage is part of an argument for a proposal, or part of a description of a process, or part of a critique of a hypothesis.

Like inference questions, application questions require you to go beyond what the author explicitly states. Application questions, however, ask you to go well beyond a simple inference, using clues in the passage to interpret possible reasons for actions

and possible outcomes of events. Your concern is to comprehend how the author's ideas might apply to other situations, or be affected by them. To do so, you have to put yourself in the author's place.

Imagine you are the author. What are you arguing for? Given what you have just stated in the passage, what would you want to say next? What might hurt your argument? What might make it stronger? What kind of audience would appreciate what you have to say? Whom are you trying to convince? If you involve yourself personally with the passage, you will be better able to grasp it in its entirety and see its significance.

Answer the following application question based on the previous passage discussing Wilson's *Sociobiology*.

EXAMPLE

Which of the following statements would be most likely to begin the paragraph immediately following the passage?

- (A) Wilson has raised a problem in ethical philosophy in order to characterize the essence of the discipline of sociobiology.
- (B) It may not be too much to say that sociology and the other social sciences are the last branches of biology waiting to be integrated into neo-Darwinist evolutionary theory.
- (C) Although behavioral biology is traditionally spoken of as if it were a unified subject, it is now emerging as two distinct disciplines centered on neurophysiology and sociobiology, respectively.
- (D) The formulation of a theory of sociobiology constitutes, in Wilson's opinion, one of the great manageable problems of biology for the next twenty or thirty years.
- (E) In the past, the development of sociobiology has been slowed by too close an identification with ethology and behavioral psychology.

As you know from answering the previous main idea and attitude questions, Wilson's point is that students of insect and vertebrate societies may be on the verge of devising a general theory of sociobiology. Like Wilson, the author of the passage appears optimistic about the likelihood of developing this unified science. At the same time, again like Wilson, he is cautious; he too does not wish to overstate the case.

Put yourself in the author's place. What would you be likely to say next? The author has just been describing Wilson's hopeful view of the prospects for putting together a general theory of sociobiology. What would be more natural than for him next to discuss Wilson's opinion of a time frame for formulating this general theory? Choice D, with its confident yet judicious view of the formulation of a theory of sociobiology as "one of the great *manageable* problems of biology for the next twenty or thirty years," seems a logical extension of what the passage has just been saying. While Choices A, B, C, and E all touch on sociobiology in some way, none of them follows as naturally from the passage's immediate argument.

TACTIC

9

When Asked to Give the Meaning of an Unfamiliar Word, Look for Nearby Context Clues

When a question in the reading comprehension part of an examination asks for the meaning of a word, that meaning can usually be deduced from the word's context. The purpose of this kind of question is to determine how well you can extract meaning from the text, not how extensive your general vocabulary is.

Sometimes the unknown word is a common word used in one of its special or technical meanings. For example:

He *threw* the pot in an hour. The wheel turned busily and the shape grew quickly as his fingers worked the wet, spinning clay. (*Throw* here means to shape on a potter's wheel.)

At other times, the unknown word may bear a deceptive resemblance to a known word.

He fell *senseless* to the ground. (He was unconscious. He did not fall foolishly or nonsensically to the ground.)

Just because you know *one* meaning of a word, do not assume that you know its meaning as it is used in a particular passage. You must look within the passage for clues. Often authors will use an unfamiliar word and then immediately define it within the same sentence. The two words or groups of words are juxtaposed — set beside one another — to make their relationship clear. Commas, hyphens, and parentheses may signal this relationship.

1. The *rebec*, a medieval stringed instrument played with a bow, has only three strings.
2. *Paleontologists* — students of fossil remains — explore the earth's history.
3. Most mammals are *quadrupeds* (four-footed animals).

Often an unfamiliar word in one clause of a sentence will be defined or clarified in the sentence's other clause.

1. The early morning dew had frozen, and everything was covered with a thin coat of *rime*.
2. Cowards, we use *euphemisms* when we cannot bear the truth, calling our dead "the dear departed," as if they have just left the room.

Refer once more to the passage on visual recognition to answer the following question.

What is involved in the process of visual recognition? First, like computer data, visual memories of an object must be stored; then, a mechanism must exist for them to be retrieved. But how does this process work?

Line The eye triggers the nerves into action. This neural activity constructs a (5) picture in the brain's memory system, an internal image of the object observed. When the eye once again confronts that object, the object is compared with its internal image; if the two images match, recognition takes place.

Among psychologists, the question as to whether visual recognition is
 (10) a parallel, single-step operation or a sequential, step-by-step one is the
 subject of much debate. Gestalt psychologists contend that objects are
 perceived as wholes in a parallel operation: the internal image is matched
 with the retinal impression in one single step. Psychologists of other
 schools, however, suggest the opposite, maintaining that the individual
 (15) features of an object are matched serially with the features of its internal
 image. Some experiments have demonstrated that the more well-known
 an object is, the more holistic its internal image becomes, and the more
 parallel the process of recognition tends to be. Nonetheless, the bulk of
 the evidence appears to uphold the serial hypothesis, at least for simple
 (20) objects that are relatively unfamiliar to the viewer.

EXAMPLE

Which of the following phrases could best replace "the more holistic its internal image becomes" (line 17) without significantly changing the sentence's meaning?

- (A) the more its internal image increases in detail
- (B) the more integrated its internal image grows
- (C) the more its internal image decreases in size
- (D) the more it reflects its internal image
- (E) the more indistinct its internal image appears

What words or phrases in the vicinity of "the more holistic its internal image becomes" give you a clue to the phrase's meaning? The phrase immediately following, "becomes more parallel." If the recognition process becomes more parallel as an object becomes more familiar, then matching takes place in one step in which all the object's features are simultaneously transformed into a single internal representation. Thus, to say that an object's internal image becomes more holistic is to say that it becomes more *integrated* or whole. The correct answer is Choice B.

TACTIC

10 Familiarize Yourself with the Technical Terms Used to Describe a Passage's Organization

Another aspect of understanding the author's point is understanding how the author organizes what he has to say. You have to understand how the author makes his point, figure out whether he begins with his thesis or main idea or works up to it gradually. Often this means observing how the opening sentence or paragraph relates to the passage as a whole.

Here is a technique question based on the last two sentences of the passage about sociobiology. Those lines are repeated here so that you can easily refer to them.

Wilson readily concedes that, from a specialist's perspective, such a likeness may at first appear superficial, even unscientifically glib. Nonetheless, in this eminent scholar's judgment, "it is out of such deliberate oversimplification that the beginnings of a general theory are made."

EXAMPLE

Which of the following statements best describes the organization of the author's discussion of the importance of the termite/macaque comparison in the development of a unified science of sociobiology (lines 16–20)?

- Ⓐ He provides an example of a comparison and then rejects its implications.
- Ⓑ He concedes that current data are insufficient and modifies his initial assertion of their importance.
- Ⓒ He acknowledges hypothetical objections to the comparison, but concludes by reaffirming its significance.
- Ⓓ He cites critical appraisals of the comparison, but refrains from making an appraisal of his own.
- Ⓔ He notes an ambiguity in the comparison, but finally concedes its validity.

Consider the first clause of each answer choice.

In his comment on how things may seem from the specialist's point of view, does the author *provide an example* of a comparison? No. He refers to a comparison made earlier. Therefore, you can eliminate Choice A.

Does he *concede the insufficiency* of current data? Not quite. He states that some people may quarrel with the comparison because it seems glib to them; he does not grant that they are right or that the data are inadequate. Therefore, you can eliminate Choice B.

Does he *acknowledge hypothetical objections* to the comparison? Definitely. Make a note to come back later to Choice C.

Does he *cite critical appraisals* of the comparison? Possibly. Again, make a note of Choice D.

Does he *note an ambiguity* in the comparison? No. He notes an objection to the comparison; he mentions no ambiguities within it. Therefore, you can eliminate Choice E.

Now consider the second clause of Choices C and D. Does the author *refrain from making an appraisal* of the comparison? No. He calls it a deliberate oversimplification that may bear fruit. Choice D is incorrect. Does the author conclude by *reaffirming the significance* of the termite/macaque comparison? Clearly he does; he quotes Wilson's conclusion that such oversimplified comparisons can provide the basis for an important general theory. The correct answer is Choice C.

TACTIC

11

**In Answering Logical Reasoning Questions,
Read Each Argument Very Carefully**

Some students, who find that they can answer many reading comprehension questions correctly by skimming the passage without reading every word, attack logical reasoning questions in the same way. This is a very poor strategy.

First of all, the temptation to skim logical argument passages should be less, since these passages are much shorter than the usual run of reading comprehension passages, and skimming them will save less time. More important, in logical reasoning passages, it is not enough to have a general idea about the argument; you must be able to analyze the argument very closely.

A cursory reading is not sufficient to pick up a subtle flaw in logic or to ascertain what unstated premise the author is assuming to be true.

TACTIC**12** In Tackling Logical Reasoning Questions,
Always Identify the Conclusion of the Argument

It is imperative that you are absolutely clear about what conclusion the author of the argument claims to have reached. The three most common situations are as follows:

- The conclusion is the last sentence of the passage, often introduced by a word such as *therefore*, *so*, *thus*, *hence*, or *consequently*. Here is a simple example of this type of argument:

Joan Smith has those qualities that we seek in our congressional leaders. She is honest, hardworking, intelligent, and dedicated. Having served for ten years in the House of Representatives, she has the requisite experience to be an effective United States Senator. Therefore, you should enthusiastically vote for Ms. Smith in this year's election.

- The conclusion is the first sentence of the passage, followed by the supporting evidence. In such a case, there is no word such as *therefore* signaling the conclusion, but it is still very easy to spot. For example, the preceding argument could have been presented as follows:

Joan Smith deserves your vote for United States Senator. She has those qualities that we seek in our congressional leaders. She is honest, hardworking, intelligent, and dedicated. In addition, having served for ten years in the House of Representatives, she has the requisite congressional experience to be an effective United States Senator.

- The conclusion is not in the passage. In such cases, the question usually asks you to identify the conclusion that is implicit in the argument. For example, if in the two preceding arguments the last or first sentence, respectively, had been omitted, you would have had no difficulty determining that the author of the passage wanted you to vote for Joan Smith. The question might have asked, "Which of the following five statements can most reasonably be inferred from the statements in the given passage?"

TACTIC**13** In Tackling Logical Reasoning Questions, Pay Particular Attention
to Signal Words in the Question (and in the Argument As Well)

In answering logical reasoning questions, you must read closely both the argument and the question or questions based on it. When you do so, be on the lookout for certain signal words that can clarify the situation. In particular, be alert for:

Cause and Effect Signal Words

The following words often signal the conclusion of an argument:

accordingly	so
consequently	therefore
for this reason	thus
hence	

Contrast Signal Words

The following words often suggest a reversal of thought within an argument or question stem:

although	instead
but	nevertheless
despite	not
even though	on the contrary
except	on the other hand
however	rather than
in contrast	unlike

Notice that in the following logical reasoning problem several of these words are present: the argument contains the words *despite*, *not*, and *consequently*, and the question stem has the word *except*. Each of these words plays a role in your reasoning.

Despite the fact that River City increased the average class size by more than 15% in all grades two years ago, this year's average SAT scores for the junior class were the highest ever. This shows that class size is not a good determinant of student performance. Consequently, other school districts should follow River City's lead and save money by increasing the size of their classes.

EXAMPLE

Each of the following statements, if true, is a valid objection to this argument EXCEPT:

- (A) The advantages of smaller classes are more pronounced in elementary school than in high school.
- (B) The number of classroom discipline problems reported by teachers is directly proportional to the number of students in the classroom.
- (C) Japanese schools have a lower teacher-to-student ratio than American schools do and have generally better results on international standardized tests.
- (D) Three years ago, the eighth graders in River City Middle School had very high scores on their standardized tests.
- (E) The effects on students of learning in larger classes take at least three or four years to manifest themselves completely.

It is implicit in the question stem that the argument is not very persuasive, and that there are several possible objections to it that could be raised. In fact, the question stem tells you that four of the five statements listed raise valid objections to the argument presented. Your job is to determine the only one that does not.

The conclusion that larger class sizes are not detrimental to student learning is based on a single piece of data concerning high school juniors.

Choice A raises the objection that looking at the results of high school students on the SAT does not tell the whole story and that elementary school students will suffer from the larger classes.

Choice E raises an even stronger objection. It suggests that all students may suffer the consequences of increased class sizes; it will just take more time until the results are clearly discernible.

Choice B raises a completely different objection. Even if student academic performance is not adversely affected by larger class sizes, there are behavioral disadvantages to having large classes.

Choice D raises still another objection to the argument, the support for which is based on the performance of this year's junior class. Because three years ago, as eighth graders, the members of this class had very high test scores, it is possible that this group of students is brighter than the average. If so, it is likely that they would excel regardless of class size, whereas other students might suffer more.

Choice C is slightly harder to analyze. If the word *lower* makes you think *smaller*, Choice C seems to say that smaller classes, at least in Japan, result in higher test scores, and are thus beneficial. This then would be yet another valid objection to the given argument. If, however, you are confident in your analysis to this point and are sure that Choices A, B, D, and E are incorrect, by the process of elimination, Choice C *must* be the correct answer. So look at Choice C again. In fact, Choice C refers to a lower teacher-to-student ratio. A lower teacher-to-student ratio means more students per teacher, not fewer students. If there are more students per teacher, that means there will be larger class sizes, not smaller. Choice C then is not an objection to the argument; it supports the argument by showing that good results can occur in larger classes.

As this example shows, logical reasoning reading questions must be read very carefully. Do not attempt to analyze them too quickly.

TACTIC

14

Always Use the Process of Elimination to Reject Incorrect Choices

From Tactic 1, you know that in logical reasoning reading questions, as in all computer-based reading questions, you should always read the question first. This, of course, does not guarantee that you will know the correct answer before you read the answer choices; in fact, more often than not, you won't. What do you do then? Use the process of elimination. In the best-case scenario, using the process of elimination will allow you to zoom in on the correct answer; at worst, it will eliminate some obvious wrong choices and allow you to make an educated guess and move on.

See how the process of elimination works on the next logical reasoning reading question.

In the United States between 1993 and 1998, the number of people on death row continued to increase, but at a rate lower than that of the general prison population.

EXAMPLE

Which of the following statements directly contradicts this claim?

- (A) The number of death row inmates increased slightly from 1993 to 1998.
- (B) Among people convicted of murder, the proportion of those who were sentenced to death decreased from 1993 to 1998.
- (C) Each year from 1993 to 1998, more death row inmates were executed than in the previous year.
- (D) Each year from 1993 to 1998, fewer people were sentenced to death than in the previous year.
- (E) The proportion of death row inmates among the general prison population rose from 0.6% in 1993 to 0.8% in 1998.

**Caution**

Do not spend even one second deciding whether you think the claim in the passage or any of the choices is true. This is completely irrelevant. Examine only the logic of the argument. Look for a statement that, if true, would mean that the claim is false.

Even though the passage is only one sentence long, you should have read the question "Which of the following statements directly contradicts this claim?" first. Unfortunately, there are many ways to contradict the claim made in that sentence. So there is no point in trying to think of one, and then looking to see if it is one of the five choices. You simply must read each choice, and then, by process of elimination, find the correct one.

- The passage states that the death row population increased. Choice A confirms this (and says nothing about the general prison population). Choice A is incorrect.
- Choice B compares the proportion of new death row inmates to the number of people convicted of murder, not to the general prison population. Choice B is incorrect.
- Choice C states that the number of people executed each year went up. If the number of people executed each year went up, the death row population might have decreased (thereby contradicting the first part of the claim), but not necessarily (not if they were replaced by many more people being sentenced to death). Choice C is incorrect.
- Choice D doesn't guarantee that the claim is true, but it comes closer to confirming it than to contradicting it. Even if fewer people were sentenced to death each year, some still were, so the number of people on death row might have increased. Again, this answer choice makes no reference to the general prison population. Choice D is incorrect.

Choice E is a little harder to analyze. Because it refers to an increase, many students would not choose it, thinking it confirms rather than refutes the claim. However, you must analyze it. Having definitively rejected choices A, B, C, and D, you know, by the process of elimination, that Choice E must be the correct answer. Let's examine why, in fact, it is.

- The passage claims the death row population increased at a slower rate than the prison population did. This means that the proportion of death row inmates in the prison population actually decreased. Choice E, which states that the proportion increased, is a direct contradiction of that claim.

NOTE

1. Although any of the choices A, B, C, and D could be true without the claim's being true, none of them is inconsistent with the truth of the claim.
2. Choices B, C, and D each introduce an extraneous issue. None of the following—the number of murder convictions, the number of executions, the number of people sentenced to death—is directly relevant to the claim.

TACTIC**15** In Questions About Weakening or Strengthening an Argument, Examine the Argument for Any Unstated Assumptions It Makes

An argument is based upon certain assumptions made by its author. If an argument's basic premises are sound, the argument is strengthened. If the argument's basic premises are flawed, the argument is weakened.

Pinpoint what the argument assumes. Then compare that assumption with the answer choices. If the question asks you to choose an answer that most strengthens the argument, look for the answer choice that is most in keeping with the argument's basic assumption. If the question asks you to choose an answer that most weakens the argument, look for the answer choice that casts the most doubt on that assumption.

Apply this tactic to the following question.

In a recent speech, the president of a major college said, "It is extremely valuable for college-educated adults entering the workplace to be able to speak at least one foreign language fluently. I am, therefore, proposing that all of our students be encouraged to spend their junior year abroad."

EXAMPLE

Which of the following, if true, most weakens the president's argument?

- (A) Most students who study abroad for a full year return home with a good working knowledge of the language spoken in the country.
- (B) Only students who already know a language well will choose to study in a country where that language is spoken.
- (C) Some colleges do a much better job than others in teaching foreign languages.
- (D) Some students learn to speak foreign languages fluently by taking intensive immersion courses in the United States.
- (E) Many students who spend their junior year abroad learn to speak the language fluently, but cannot read and write with ease.

The argument claims that, in order for students to learn to speak foreign languages well, they should study abroad. It clearly assumes a high correlation between studying in a foreign country and learning to speak the language well. It assumes, at the least, that students who have studied abroad can speak a foreign language well, and, possibly, that students who have not studied abroad cannot.

Choice A is in keeping with the assumption inherent in the president's argument. If true, it would strengthen the argument, not weaken it. Choice E, by stating that many students who study abroad do not learn to read and write the language well, seems to cast doubt on the value of the junior year abroad program. However, since the president talked only about the value of being able to speak a foreign language well, Choice E also strengthens his argument.

Choices B and C are also incorrect. They neither strengthen nor weaken the president's argument. At worst, Choice B suggests that it may be difficult to convince some students to study abroad; however, it does not state that they should not be encouraged to do so. In order to weaken the president's argument, Choice C would have to go much further than it does; it would have to state explicitly that some colleges do such a good job that their students actually learn to speak foreign languages fluently.

The correct answer is Choice D. It states that it is possible for American students to learn to speak foreign languages fluently without studying abroad. Choice D weakens the president's argument. It does so by suggesting an alternative method by which college students could achieve the president's goal of speaking a foreign language fluently.

Practice Exercises

Note: Although the reading passages on the computer-based GRE range from 50 to 400 words in length, the paper-based GRE taken by students in foreign countries includes reading passages of up to 800 words in length. Therefore, the following practice exercises present a selection of long and short passages to help students to prepare for either the computer-based or the paper-based test.

Directions: Each of the following reading comprehension questions is based on the content of the following passage. Read the passage and then determine the best answer choice for each question. Base your choice on what this passage states directly or implies, not on any information you may have gained elsewhere.

One phase of the business cycle is the expansion phase. This phase is a twofold one, including recovery and prosperity. During
 Line the recovery period there is ever-growing
 (5) expansion of existing facilities, and new facilities for production are created. More businesses are created and older ones expanded. Improvements of various kinds are made.
There is an ever-increasing optimism about
 (10) **the future of economic growth.** Much capital is invested in machinery or "heavy" industry. More labor is employed. More materials are required. As one part of the economy develops, other parts are affected. For example,
 (15) a great expansion in automobiles results in an expansion of the steel, glass, and rubber industries. Roads are required; thus the cement and machinery industries are stimulated. Demand for labor and materials results
 (20) in greater prosperity for workers and suppliers of raw materials, including farmers. This increases purchasing power and the volume of

goods bought and sold. Thus, prosperity is diffused among the various segments of the
 (25) population. This prosperity period may continue to rise and rise without an apparent end. However, a time comes when this phase reaches a peak and stops spiraling upwards. This is the end of the expansion phase.

- Which of the following statements best exemplifies the optimism mentioned in the bold-faced sentence of the passage as being part of the expansion phase?
 - Public funds are designated for the construction of new highways designed to stimulate tourism.
 - Industrial firms allocate monies for the purchase of machine tools.
 - The prices of agricultural commodities are increased at the producer level.
 - Full employment is achieved at all levels of the economy.
 - As technology advances, innovative businesses replace antiquated firms.
- It can be inferred from the passage that the author believes that
 - when consumers lose their confidence in the market, a recession follows
 - cyclical ends to business expansion are normal
 - luxury goods such as jewelry are unaffected by industrial expansion
 - with sound economic policies, prosperity can become a fixed pattern
 - the creation of new products is essential for prosperity

3. Which of the following statements would be most likely to begin the paragraph immediately following the passage?
- (A) Union demands may also have an effect on business cycles.
 - (B) Some industries are, by their very nature, cyclical, having regular phases of expansion and recession.
 - (C) Information is a factor that must be taken into consideration in any discussion of the expansion phase.
 - (D) The farmer's role during the expansion phase is of vital importance.
 - (E) The other phase of the business cycle is called the recession phase.

Both plants and animals of many sorts show remarkable changes in form, structure, growth habits, and even mode of reproduction in becoming adapted to a different climatic environment, type of food supply, or mode of living. This divergence in response to evolution is commonly expressed by altering the form and function of some part or parts of the organism, the original identity of which is clearly discernible. For example, the creeping foot of the snail is seen in related marine pteropods to be modified into a flapping organ useful for swimming, and is changed into prehensile arms that bear suckorial disks in the squids and other cephalopods. The limbs of various mammals are modified according to several different modes of life—for swift running (cursorial) as in the horse and antelope; for swinging in trees (arboreal) as in the monkeys; for digging (fossorial) as in the moles and gophers; for flying (volant) as in the bats; for swimming (aquatic) as in the seals, whales, and dolphins; and for other adaptations. The structures or organs that show main change in connection with this adaptive divergence are commonly identified readily as **homologous**, in spite of great alterations. Thus, the finger and wrist bones of a bat and whale, for instance, have virtually nothing in common except that they are definitely equivalent elements of the mammalian limb.

Directions: For the following question, consider each question separately and select *all* that apply.

4. The author provides information that would answer which of the following questions?
- (A) What factors cause change in organisms?
 - (B) What is the theory of evolution?
 - (C) How are horses' legs related to seals' flippers?
5. Which of the following words could best be substituted for the boldfaced word **homologous** without substantially changing the author's meaning?
- (A) altered
 - (B) mammalian
 - (C) corresponding
 - (D) divergent
 - (E) tactile

Although there are no physical differences between the visual organs of the two groups, the inhabitants of the Bilge Islands, when shown a card displaying a spectrum of colors, perceived fewer colors than do most persons in the United States.

6. Which of the following conclusions can most reliably be drawn from the information above?
- (A) Human color perception is at least partly determined by factors other than the physical structure of the visual organs.
 - (B) The Bilge Islanders are probably taught in childhood to recognize fewer colors than are persons in the United States.
 - (C) Differences in social structure probably affect color perception.
 - (D) Color perception in humans is influenced by differences in physical environment.
 - (E) Bilge Islanders may have fewer terms denoting colors in their language than do English-speaking persons.

The layer of air next to the earth, which extends upward for about 10 miles, is known as the troposphere. On the whole, the troposphere makes up about 75% of all the weight of the atmosphere. It is the warmest part of the atmosphere because most of the solar radiation is absorbed by the earth's surface, which warms the air immediately surrounding it. A steady decrease of temperature with increasing elevation is a most striking characteristic of this region, whose upper layers are colder because of their greater distance from the earth's surface and because of the rapid radiation of heat into space. (Temperatures within the troposphere decrease about 3.5° per 1,000-foot increase in altitude.) Within the troposphere, winds and air currents distribute heat and moisture. Strong winds, called jet streams, are located at the upper levels of the troposphere. These jet streams are both complex and widespread in occurrence. They normally show a wave-shaped pattern and move from west to east at velocities of 150 mph, but velocities as high as 400 mph have been noted. The influences of changing locations and strengths of jet streams upon weather conditions and patterns are no doubt considerable. Current intensive research may eventually reveal their true significance.

7. It can be inferred from the passage that a jet plane will usually have its best average rate of speed on its run from
- (A) New York to San Francisco
 - (B) Los Angeles to New York
 - (C) Boston to Miami
 - (D) Bermuda to New York
 - (E) London to Washington, DC

8. It can be inferred from the passage that at the top of Jungfrau, which is 12,000 feet above the town of Interlaken in Switzerland, the temperature is usually
- (A) below freezing
 - (B) about 42° colder than on the ground
 - (C) warmer than in Interlaken
 - (D) affected by the ionosphere
 - (E) about 75° colder than in Interlaken

9. The passage states that the troposphere is the warmest part of the atmosphere because it
- (A) is closest to the sun
 - (B) contains electrically charged particles
 - (C) radiates heat into space
 - (D) has winds and air currents that distribute the heat
 - (E) is warmed by the earth's heat

"The emancipation of women," James Joyce told one of his friends, "has caused the greatest revolution in our time in the most important relationship there is—that between men and women." Other modernists agreed: Virginia Woolf, claiming that in about 1910, "human character changed," and, illustrating the new balance between the sexes, urged "Read the 'Agamemnon,' and see whether your sympathies are not almost entirely with Clytemnestra." D. H. Lawrence wrote, "perhaps the deepest fight for 2000 years and more, has been the fight for women's independence."

But if modernist writers considered women's revolt against men's domination one of their "greatest" and "deepest" themes, only recently—in perhaps the past 15 years—has literary criticism begun to catch up with it. Not that the images of sexual antagonism that abound in modern literature have gone unremarked; far from it. But what we are able to see in literary works depends on the perspectives we bring to them, and now that women—enough to make a difference—are reforming canons and interpreting literature, the landscapes of literary history and the features of individual books have begun to change.

10. According to the passage, women are changing literary criticism by
- (A) noting instances of hostility between men and women
 - (B) seeing the literature from fresh points of view
 - (C) studying the works of early 20th-century writers
 - (D) reviewing books written by feminists
 - (E) resisting masculine influence
11. The author quotes James Joyce, Virginia Woolf, and D. H. Lawrence primarily in order to show that
- (A) these were feminist writers
 - (B) although well-intentioned, they were ineffectual
 - (C) before the 20th century there was little interest in women's literature
 - (D) modern literature is dependent on the women's movement
 - (E) the interest in feminist issues is not new

When you first saw a piece of African art, it impressed you as a unit; you did not see it as a collection of shapes or forms. This, of course, means that the shapes and volumes within the sculpture itself were coordinated so successfully that the viewer was affected emotionally.

- It is entirely valid to ask how, from a purely artistic point of view, this unity was achieved. And we must also inquire whether there is a recurrent pattern or rules or a plastic language and vocabulary that is responsible for the powerful communication of emotion which the best African sculpture achieves. If there is such a pattern of rules, are these rules applied consciously or instinctively to obtain so many works of such high artistic quality?

It is obvious from the study of art history that an intense and unified emotional experience, such as the Christian credo of the Byzantine or 12th or 13th century Europe,

when espoused in art forms, gave great unity, coherence, and power to art. But such an integrated feeling was only the inspirational element for the artist, only the starting point of the creative act. The expression of this emotion and its realization in the work could be done only with discipline and thorough knowledge of the craft. And the African sculptor was a highly trained workman. He started his apprenticeship with a master when a child, and he learned the tribal styles and the use of tools and the nature of woods so thoroughly that his carving became what Boas calls "motor action." He carved automatically and instinctively.

12. The information in the passage suggests that a mature African carver might best be compared to a
- (A) chef following a recipe
 - (B) fluent speaker of English just now beginning to study French
 - (C) batter who hits a home run the first time at bat
 - (D) veteran fiddler expertly varying a traditional tune
 - (E) senior editor correcting the prose of an unidiomatic author

The likelihood of America's exhausting her natural resources is growing less. All kinds of waste are being recycled, and new uses are constantly being found for almost everything. We are getting more use out of what we produce, and are manufacturing many new byproducts out of what we formerly threw away. It is, therefore, unnecessary for us to continue to ban logging in national parks, nature reserves, or areas inhabited by endangered species of animals.

13. Which one of the following most seriously undermines the conclusion of this argument?

- Ⓐ The increasing amount of recycled material made available each year is equal to one-tenth of the increasing amount of natural material consumed annually.
- Ⓑ Recent studies have shown that the number of endangered animals throughout the world fluctuates sharply and is chiefly determined by changes in meteorological conditions.
- Ⓒ The logging industry contributes huge sums of money to political campaigns in states where it has a financial interest.
- Ⓓ The techniques that make recycling possible are constantly improved so that more is reclaimed for lower costs each year.
- Ⓔ Political contributions by the recycling industry are now greater than those of either the logging or animal protection interests.

ANSWER KEY

- | | | |
|---------|-------|-------|
| 1. B | 6. A | 11. E |
| 2. B | 7. B | 12. D |
| 3. E | 8. B | 13. A |
| 4. A, C | 9. E | |
| 5. C | 10. B | |