
SAT Practice Test #4

Note: Section 5, the variable section, has been omitted from this practice test.



ESSAY

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ESSAY

Time — 25 minutes

Turn to page 2 of your answer sheet to write your ESSAY.

The essay gives you an opportunity to show how effectively you can develop and express ideas. You should, therefore, take care to develop your point of view, present your ideas logically and clearly, and use language precisely.

Your essay must be written on the lines provided on your answer sheet—you will receive no other paper on which to write. You will have enough space if you write on every line, avoid wide margins, and keep your handwriting to a reasonable size. Remember that people who are not familiar with your handwriting will read what you write. Try to write or print so that what you are writing is legible to those readers.

Important Reminders:

- **A pencil is required for the essay.** An essay written in ink will receive a score of zero.
- **Do not write your essay in your test book.** You will receive credit only for what you write on your answer sheet.
- **An off-topic essay will receive a score of zero.**

You have twenty-five minutes to write an essay on the topic assigned below.

Think carefully about the issue presented in the following excerpt and the assignment below.

The old saying, “be careful what you wish for,” may be an appropriate warning. The drive to achieve a particular goal can dangerously narrow one’s perspective and encourage the fantasy that success in one endeavor will solve all of life’s difficulties. In fact, success can sometimes have unexpected consequences. Those who propel themselves toward the achievement of one goal often find that their lives are worse once “success” is achieved than they were before.

Assignment: Can success be disastrous? Plan and write an essay in which you develop your point of view on this issue. Support your position with reasoning and examples taken from your reading, studies, experience, or observations.

BEGIN WRITING YOUR ESSAY ON PAGE 2 OF THE ANSWER SHEET.

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.**

SECTION 2
 Time — 25 minutes
 20 Questions

Turn to Section 2 (page 4) of your answer sheet to answer the questions in this section.

Directions: For this section, solve each problem and decide which is the best of the choices given. Fill in the corresponding circle on the answer sheet. You may use any available space for scratchwork.

Notes

- The use of a calculator is permitted.
- All numbers used are real numbers.
- Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is not drawn to scale. All figures lie in a plane unless otherwise indicated.
- Unless otherwise specified, the domain of any function f is assumed to be the set of all real numbers x for which $f(x)$ is a real number.

Reference Information

$A = \pi r^2$
 $C = 2\pi r$

$A = \ell w$

$A = \frac{1}{2}bh$

$V = \ell wh$

$V = \pi r^2 h$

$c^2 = a^2 + b^2$

Special Right Triangles

The number of degrees of arc in a circle is 360.
 The sum of the measures in degrees of the angles of a triangle is 180.

- When Ms. Yun arrived at the grocery store, there were 5 packages of hot dog rolls left on the shelf. One package contained 12 rolls, and each of the others contained 8 rolls. If Ms. Yun bought all 5 packages, how many hot dog rolls did she purchase at the store?
 - 32
 - 36
 - 44
 - 48
 - 52

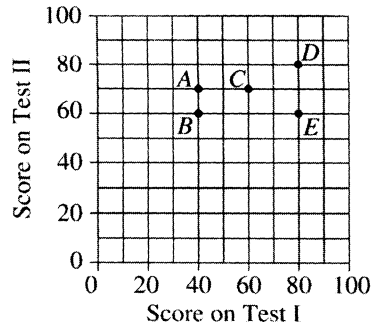
- A , B , and C are points on a line in that order. If $AB = 30$ and BC is 20 more than AB , what does AC equal?
 - 50
 - 60
 - 70
 - 80
 - 90

- If $x + 3 = a$, then $2x + 6 =$
 - $a + 3$
 - $a + 6$
 - $2a$
 - $2a + 3$
 - $2a + 6$

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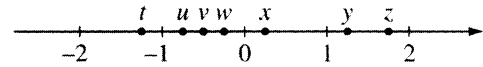
Questions 4-5 refer to the following graph.

TEST SCORES OF FIVE STUDENTS



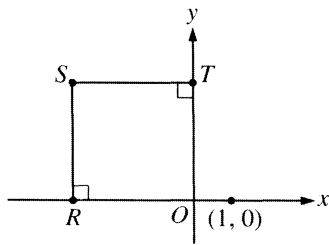
4. For which student was the change in scores from test I to test II the greatest?
- (A) A
 (B) B
 (C) C
 (D) D
 (E) E

5. What was the average (arithmetic mean) of the scores of the 5 students on test II?
- (A) 60
 (B) 65
 (C) 68
 (D) 70
 (E) 72



6. On the number line above, t , u , v , w , x , y , and z are coordinates of the indicated points. Which of the following is closest in value to $|u + v|$?
- (A) t
 (B) w
 (C) x
 (D) y
 (E) z

7. If $x = \frac{1}{2}$, what is the value of $\frac{1}{x} + \frac{1}{x-1}$?
- (A) -4
 (B) 0
 (C) 1
 (D) 2
 (E) 3



8. In the figure above, $RS = ST$ and the coordinates of S are $(k, 3)$. What is the value of k ?

- (A) -3
 (B) $-\sqrt{3}$
 (C) 0
 (D) $\sqrt{3}$
 (E) 3

x	0	1	2	3
$f(x)$	1	2	5	10

9. The table above gives values of the quadratic function f for selected values of x . Which of the following defines f ?

- (A) $f(x) = x^2 + 1$
 (B) $f(x) = x^2 + 2$
 (C) $f(x) = 2x^2 - 2$
 (D) $f(x) = 2x^2 - 1$
 (E) $f(x) = 2x^2 + 1$

10. How old was a person exactly 1 year ago if exactly x years ago the person was y years old?

- (A) $y - 1$
 (B) $y - x - 1$
 (C) $x - y - 1$
 (D) $y + x + 1$
 (E) $y + x - 1$

Z W Y X

11. The sequence above may be changed in either of two ways. Either two adjacent letters may be interchanged or the entire sequence may be reversed. What is the least number of such changes needed to put the letters into alphabetical order from left to right?

- (A) 2
 (B) 3
 (C) 4
 (D) 5
 (E) 6

12. How many cubical blocks, each with edges of length 4 centimeters, are needed to fill a rectangular box that has inside dimensions 20 centimeters by 24 centimeters by 32 centimeters?

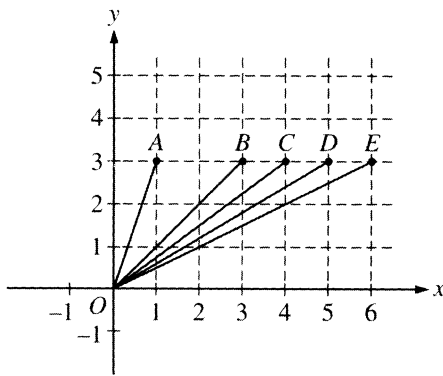
- (A) 38
 (B) 96
 (C) 192
 (D) 240
 (E) 384

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13. If $0 < n < 1$, which of the following gives the correct ordering of \sqrt{n} , n , and n^2 ?

- (A) $\sqrt{n} < n < n^2$
 (B) $\sqrt{n} < n^2 < n$
 (C) $n < \sqrt{n} < n^2$
 (D) $n < n^2 < \sqrt{n}$
 (E) $n^2 < n < \sqrt{n}$

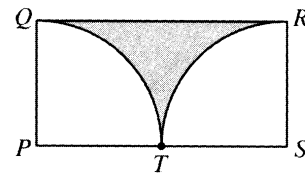


14. In the figure above, what is the median of the slopes of \overline{OA} , \overline{OB} , \overline{OC} , \overline{OD} , and \overline{OE} ?

- (A) $\frac{4}{3}$
 (B) 1
 (C) $\frac{3}{4}$
 (D) $\frac{3}{5}$
 (E) $\frac{1}{2}$

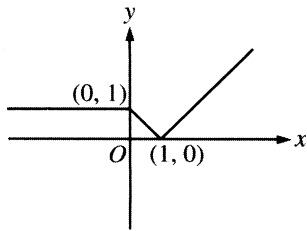
15. When it is noon eastern standard time (EST) in New York City, it is 9:00 A.M. Pacific standard time (PST) in San Francisco. A plane took off from New York City at noon EST and arrived in San Francisco at 4:00 P.M. PST on the same day. If a second plane left San Francisco at noon PST and took exactly the same amount of time for the trip, what was the plane's arrival time (EST) in New York City?

- (A) 10:00 P.M. EST
 (B) 9:00 P.M. EST
 (C) 7:00 P.M. EST
 (D) 6:00 P.M. EST
 (E) 4:00 P.M. EST



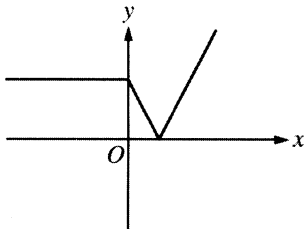
16. In rectangle $PQRS$ above, arcs QT and RT are quarter circles with centers at P and S , respectively. If the radius of each quarter circle is 1, what is the area of the shaded region?

- (A) $1 - \frac{\pi}{4}$
 (B) $2 - \frac{\pi}{2}$
 (C) $2 - \frac{\pi}{4}$
 (D) $\frac{\pi}{4}$
 (E) $\frac{2}{3}$

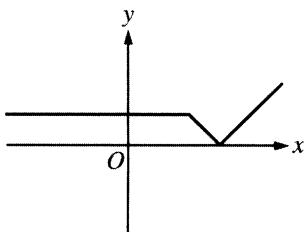


17. The graph of $y = f(x)$ is shown above. Which of the following could be the graph of $y = f(x + 2)$?

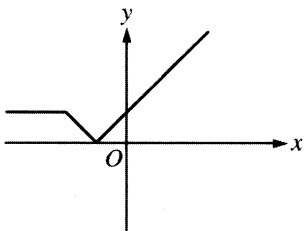
(A)



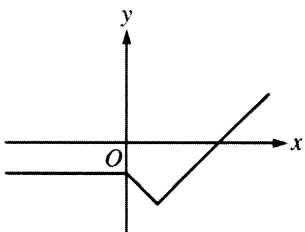
(B)



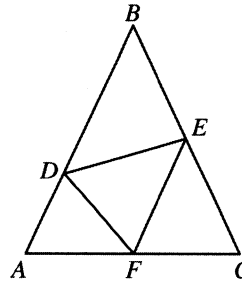
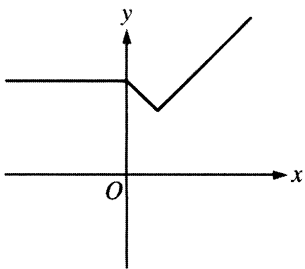
(C)



(D)



(E)



Note: Figure not drawn to scale.

18. In the figure above, $AB = BC$ and $DE = EF = DF$. If the measure of $\angle ABC$ is 30° and the measure of $\angle BDE$ is 50° , what is the measure of $\angle DFA$?

- (A) 30°
- (B) 35°
- (C) 40°
- (D) 45°
- (E) 50°

19. If a , b , c , and f are four nonzero numbers, then all of the following proportions are equivalent EXCEPT

(A) $\frac{a}{f} = \frac{b}{c}$

(B) $\frac{f}{c} = \frac{b}{a}$

(C) $\frac{c}{a} = \frac{f}{b}$

(D) $\frac{a}{c} = \frac{b}{f}$

(E) $\frac{af}{bc} = \frac{1}{1}$

20. For all numbers x and y , let the operation \square be defined by $x \square y = xy - y$. If a and b are positive integers, which of the following can be equal to zero?

I. $a \square b$

II. $(a + b) \square b$

III. $a \square (a + b)$

(A) I only

(B) II only

(C) III only

(D) I and II

(E) I and III

STOP

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Do not turn to any other section in the test.



SECTION 3

Time — 25 minutes

24 Questions

Turn to Section 3 (page 4) of your answer sheet to answer the questions in this section.

Directions: For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

Each sentence below has one or two blanks, each blank indicating that something has been omitted. Beneath the sentence are five words or sets of words labeled A through E. Choose the word or set of words that, when inserted in the sentence, best fits the meaning of the sentence as a whole.

Example:

Hoping to ----- the dispute, negotiators proposed a compromise that they felt would be ----- to both labor and management.

- (A) enforce . . useful
 (B) end . . divisive
 (C) overcome . . unattractive
 (D) extend . . satisfactory
 (E) resolve . . acceptable

(A) (B) (C) (D) ●

- The rebels saw the huge statue of the dictator as ----- of the totalitarian regime and swiftly toppled the monument.

(A) an indictment (B) an illusion (C) a copy
 (D) a symbol (E) a mockery
- Residents of the isolated island were forced to master the art of navigation, becoming the ocean's most ----- sailors.

(A) adept (B) temperamental (C) congenial
 (D) vulnerable (E) reclusive
- The spotted bowerbird has a ----- for amassing the bright shiny objects it needs for decorating its bower: it will enter houses to ----- cutlery, coins, thimbles, nails, screws, even car keys.

(A) knack . . assess
 (B) penchant . . pilfer
 (C) purpose . . dispense
 (D) predilection . . disturb
 (E) remedy . . raid
- Not only was the science of Hildegard of Bingen ----- her theology, but her religious visions helped give her scientific works ----- by winning her the support of medieval church authorities.

(A) inseparable from . . legitimacy
 (B) unconcerned with . . prestige
 (C) derived from . . profundity
 (D) related to . . accuracy
 (E) diminished by . . detachment
- Opponents of the research institute label it ----- anachronism; its scholars, they allege, have ----- rivaling those of pre-Revolutionary French nobility.

(A) an elitist . . perquisites
 (B) a monarchical . . tribulations
 (C) an irreproachable . . luxuries
 (D) a reprehensible . . afflictions
 (E) a commendable . . privileges

GO ON TO THE NEXT PAGE



The passages below are followed by questions based on their content; questions following a pair of related passages may also be based on the relationship between the paired passages. Answer the questions on the basis of what is stated or implied in the passages and in any introductory material that may be provided.

Questions 6-9 are based on the following passages.

Passage 1

The eighteenth-century botanist Carolus Linnaeus' enormous and essential contribution to natural history was to devise a system of classification whereby any plant or animal could be identified and slotted into an overall plan. Yet Linnaeus himself would probably have been the first to admit that classification is only a tool, and not the ultimate purpose, of biological inquiry. Unfortunately, this truth was not apparent to his immediate successors, who for the next hundred years were to concern themselves almost exclusively with classification.

Passage 2

I am a heretic about Linnaeus. I do not dispute the value of the tool he gave natural science, but I am wary about the change it has effected on humans' relationship to the world. From Linnaeus on, much of science has been devoted to sorting masses into individual entities and arranging the entities neatly. The cost of having so successfully itemized and pigeonholed nature is to limit certain possibilities of seeing and apprehending. For example, the modern human thinks that he or she can best understand a tree (or a species of tree) by examining a single tree. But trees are not intended to grow in isolation. They are social creatures, and their society in turn supports other species of plants, insects, birds, mammals, and micro-organisms, all of which make up the whole experience of the woods.

6. Compared to the author of Passage 2, the author of Passage 1 regards Linnaeus with more
- (A) cynicism
 - (B) bafflement
 - (C) appreciation
 - (D) nostalgia
 - (E) resentment

7. Unlike the author of Passage 1, the author of Passage 2 makes use of

- (A) scientific data
- (B) literary allusion
- (C) historical research
- (D) personal voice
- (E) direct citation

8. Both passages emphasize which of the following aspects of Linnaeus' work?

- (A) The extent to which it contributed to natural science
- (B) The way in which it limits present-day science
- (C) The degree to which it revived interest in biology
- (D) The decisiveness with which it settled scientific disputes
- (E) The kinds of scientific discoveries on which it built

9. The author of Passage 1 would most likely respond to the opening of Passage 2 (lines 12-17) by arguing that the author of Passage 2 has

- (A) demonstrated that Linnaeus should be better known as a scientist than he currently is
- (B) minimized the achievements of those scientists who built on Linnaeus' work
- (C) refused to appreciate the importance of proper classification to scientific progress
- (D) failed to distinguish the ideas of Linnaeus from those of his followers
- (E) misunderstood Linnaeus' primary contribution to natural history



Questions 10-15 are based on the following passage.

The following is an excerpt from a translation of a novel written in Spanish by an author from Colombia. In a fanciful manner, the novelist portrays the townspeople of an isolated village.

Dazzled by so many and such marvelous inventions, the people of Macondo did not know where their amazement began. They stayed up all night looking at the pale electric bulbs fed by the electric plant that Aureliano Triste had brought back when the train made its second trip, and it took time and effort for them to grow accustomed to its obsessive noise.

They became indignant over the living images that the prosperous merchant Bruno Crespi projected on the screen in the theater with the lion-head ticket windows, for the character who had died and was buried in one film, and for whose misfortune tears of affliction had been shed, would reappear alive and transformed into an Arab sheik in the next one. The audience, who paid two cents apiece to share the difficulties of the actors, would not tolerate such an outlandish fraud and they broke up the seats. The mayor, at the urging of Bruno Crespi, explained in a proclamation that the cinema was a machine of illusions that did not merit the emotional outbursts of the audience. With that discouraging explanation many felt that they had been the victims of some new trickery and they decided not to return to the movies, considering that they already had too many troubles of their own to weep over the acted-out misfortunes of imaginary beings.

Something similar happened with cylinder phonographs brought from France and intended as a substitute for the antiquated hand organs used by the band of musicians. For a time the phonograph records had serious effects on the livelihood of the musicians. At first curiosity increased the business on the street where they were sold and there was even word of respectable persons who disguised themselves as workers in order to observe the novelty of the phonograph at firsthand, but from so much and such close observation they soon reached the conclusion that it was not an enchanted mill as everyone had thought and as some had said, but a mechanical trick that could not be compared with something so moving, so human, and so full of everyday truth as a band of musicians. It was such a serious disappointment that when phonographs became so popular that there was one in every house they were not considered objects for amusement for adults but as something good for children to take apart.

On the other hand, when someone from the town had the opportunity to test the crude reality of the telephone installed in the railroad station, which was thought to be a rudimentary version of the phonograph because of its crank, even the most incredulous were upset. It was as if God had decided to put to the test every capacity for surprise and was keeping the inhabitants of Macondo in a permanent alternation between excitement and disappointment, doubt and revelation, to such an extreme that no one knew for certain where the limits of reality lay.

10. The word “obsessive” (line 7) most nearly means

- (A) enthusiastic
- (B) persistent
- (C) obvious
- (D) infatuated
- (E) hardworking

11. The “fraud” (line 16) that upset the citizens of Macondo was related to the

- (A) excessive charge for admission
- (B) outlandish adventures of the characters on the screen
- (C) fact that the events depicted on the screen did not actually occur
- (D) types of difficulties the actors faced
- (E) implausible plots of the stories that were told

12. The citizens lost interest in their phonographs because

- (A) the machines lacked the heart and soul of true musicians
- (B) few people were able to operate them
- (C) the machines were too difficult to observe firsthand
- (D) many musicians lost their jobs because of them
- (E) the children were breaking them faster than they were made

13. The citizens of Macondo were distressed by the arrival of the telephone because they

- (A) did not know where it had come from
- (B) had expected a more socially beneficial invention
- (C) could envision the changes it would bring to daily village life
- (D) no longer felt able to make the usual assumptions about their world
- (E) were fearful that it would have serious effects on their continued employment

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14. The aspect of the new inventions that most disappointed the citizens was that these inventions
- (A) were not all fashioned with a crank
 - (B) did not have any real educational value
 - (C) were not at all what they seemed to be
 - (D) were meant purely for entertainment
 - (E) were so intricate they were difficult to operate

15. The major purpose of the passage is to
- (A) illustrate the influence the distinguished residents of Macondo had on the other citizens
 - (B) describe the new scientific inventions that were introduced to Macondo
 - (C) depict a diverse crowd reacting in unison to a magical performance
 - (D) describe the people's responses to the influx of technical advances
 - (E) delineate old-fashioned ideas about the virtue of nature over technology

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Questions 16-24 are based on the following passage.

This passage is by a choreographer who worked with the influential dancer and choreographer Martha Graham (1894-1991). It focuses on the use of space and gesture in dance.

I am not an adept aesthete, and I could not presume to analyze Martha's sense of design or approach toward design. But I believe she dealt with the elements of line and direction with the instincts of a mathematician or physicist, adding to each their emotional relations. For example, a straight line rarely, if ever, occurs in nature, but it does occur in art, and it is used in art with various telling effects. Direction works similar magic. An approaching body produces one kind of emotional line, a receding or departing body another; the meeting of two forces produces visual, kinesthetic, and emotional effects, with a world of suggestibility around them like a penumbra that evokes many ideas and emotions whenever these forms are manipulated. Basic human gestures assume, therefore, an almost mystic power. The simple maneuver of turning the face away, for example, removes personality, relationship. Not only that, it seems to alter the relation of the individual to present time and present place, to make here-and-now other-where and other-time. It also shifts the particular personality to the general and the symbolic. This is the power of the human face and the human regard, and the meeting of the eyes is probably as magic a connection as can be made on this earth, equal to any amount of electrical shock or charge. It represents the heart of dynamism, life itself. The loss of that regard reduces all connections to nothingness and void.

"Turning one's back" has become a common figure of speech. It means withholding approval, disclaiming, negating; and, in fact, in common conduct the physical turning of the back is equated with absolute negation and insult. No back is turned on a royal personage or a figure of high respect. This is linked with the loss of visual contact and regard. One cuts dead by not meeting the eyes.

We know much about emotional symbols. Those used by the medieval and Renaissance painters were understood by the scholars and artists of the time—but, more wonderful, they mean to us today spontaneously just what they meant then; they seem to be permanent. We dream, Jung* tells us, in terms and symbols of classic mythology. And since, according to Jung, all people share a "collective unconscious," people from disparate traditions nonetheless dream in the same terms. Is it not also likely, then, that certain space relations, rhythms, and stresses have psychological significance, that some of these patterns are universal and the key to emotional response, that their deviations and modifications can be meaningful to artists in terms of their own life experiences and that these overtones are grasped by spectators without conscious analysis?

These matters are basic to our well-being as land and air animals. As plants will turn to sunlight or rocks or moisture according to their nature, so we bend toward or escape

from spatial arrangements according to our emotional needs. Look around any restaurant and see how few people will sit at a center table unless the sides are filled up. Yet monarchs of old always dined dead center and many times in public.

The individual as a personality, then, has a particular code in space and rhythm, evolved from his or her life history and from the history of the human race. It is just the manipulation of these suggestions through time-space that is the material of choreography.

* A Swiss psychologist (1875-1961)

16. The first two sentences (lines 1-5) are characterized, respectively, by
- (A) disclaimer and assertion
 - (B) invocation and definition
 - (C) apology and confession
 - (D) authority and hypothesis
 - (E) rebuttal and analysis
17. In lines 5-6, the statement "a straight line rarely, if ever, occurs in nature" emphasizes the author's recognition of the
- (A) choreographer's need for spectacular effects
 - (B) choreographer's use of mathematical forms
 - (C) choreographer's estrangement from nature
 - (D) impossibility of performing certain choreographed motions
 - (E) universality of geometrical forms
18. By saying that the meeting of two forces produces effects that have "a world of suggestibility around them" (lines 11-12), the author means that the physical event
- (A) provokes unwarranted suspicions
 - (B) reveals the motives of the artist
 - (C) acts on the gullibility of the audience
 - (D) lulls the audience into complacent acceptance
 - (E) evokes a vast number of associations
19. The author's main point about "human gestures" (line 14) is that they
- (A) are not subject to an individual's control
 - (B) are difficult to analyze without scientific terminology
 - (C) provoke different responses in people
 - (D) carry powerful, universally understood messages
 - (E) evolve with changes in cultural hierarchy

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20. The author mentions “the meeting of the eyes” (lines 21-22) to suggest the
- (A) effect that rank or status has on gestural meaning
 - (B) difficulty of controlling emotional symbols
 - (C) degree to which body language is not a function of personality
 - (D) extent of the power of individual human contact
 - (E) nature of artistically pleasing events
21. The author suggests which of the following about the work of “medieval and Renaissance painters” (line 35) ?
- (A) It was influenced by its royal patronage.
 - (B) It was conceived more spontaneously than is modern art.
 - (C) It should be cherished for its unique symbolism.
 - (D) It contains symbols that are immediately accessible to contemporary viewers.
 - (E) It is an unsophisticated version of symbolism developed later by choreographers.
22. As used in line 43, “stresses” most nearly means
- (A) emphases
 - (B) loads
 - (C) anxieties
 - (D) influences
 - (E) sounds
23. As used in line 48, “grasped” most nearly means
- (A) adhered to
 - (B) seized on
 - (C) controlled
 - (D) held
 - (E) understood
24. The author suggests that people in a restaurant (lines 53-54) are expressing their emotional need for
- (A) unhindered interaction
 - (B) relative privacy
 - (C) respect from strangers
 - (D) approval from others
 - (E) reclusive isolation

STOP

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SECTION 4

Time — 25 minutes

18 Questions

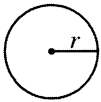
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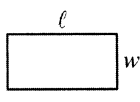
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- All numbers used are real numbers.
- Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is not drawn to scale. All figures lie in a plane unless otherwise indicated.
- Unless otherwise specified, the domain of any function f is assumed to be the set of all real numbers x for which $f(x)$ is a real number.

Reference Information

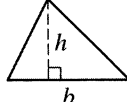


$$A = \pi r^2$$

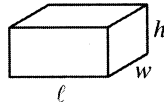
$$C = 2\pi r$$



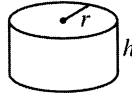
$$A = \ell w$$



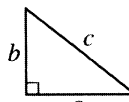
$$A = \frac{1}{2}bh$$



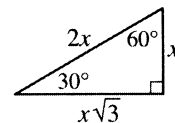
$$V = \ell wh$$



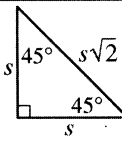
$$V = \pi r^2 h$$



$$c^2 = a^2 + b^2$$



Special Right Triangles



The number of degrees of arc in a circle is 360.

The sum of the measures in degrees of the angles of a triangle is 180.

- If $x - y = 8$, $y = 3z$, and $z = 2$, what is the value of x ?
 - 14
 - 2
 - 2
 - 3
 - 14

- Todd is older than Marta but younger than Susan. If t , m , and s represent the ages, in years, of Todd, Marta, and Susan, respectively, which of the following is true?
 - $m < t < s$
 - $s < m < t$
 - $s < t < m$
 - $t < m < s$
 - $t < s < m$

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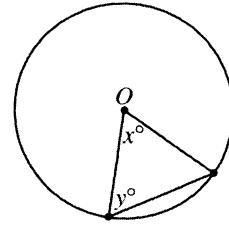


3. If the areas of two regions are equal and the sum of the areas of the regions is 5, what is the average (arithmetic mean) of the areas of the two regions?

(A) 0
 (B) $\frac{5}{2}$
 (C) $\frac{5}{4}$
 (D) 5
 (E) 10

4. Let S be the set of all integers that can be written as $n^2 + 1$, where n is a nonzero integer. Which of the following integers is in S ?

(A) 16
 (B) 28
 (C) 35
 (D) 39
 (E) 50



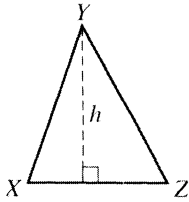
Note: Figure not drawn to scale.

5. In the figure above, point O is the center of the circle. If $x = 40$, what is the value of y ?

(A) 40
 (B) 50
 (C) 60
 (D) 70
 (E) 80

6. A “simple square” is any integer greater than 1 that has only three positive integer factors—itsself, its square root, and 1. Which of the following is a simple square?

(A) 121
 (B) 100
 (C) 81
 (D) 64
 (E) 33



7. In $\triangle XYZ$ above, XZ is $\frac{6}{7}$ of h , the length of the altitude. What is the area of $\triangle XYZ$ in terms of h ?

- (A) $\frac{h^2}{3}$
(B) $\frac{3h^2}{7}$
(C) $\frac{3h}{7}$
(D) $\frac{6h^2}{7}$
(E) $\frac{12h^2}{7}$

8. If a and b are positive integers and $(a^{\frac{1}{2}} b^{\frac{1}{3}})^6 = 432$, what is the value of ab ?

- (A) 6
(B) 12
(C) 18
(D) 24
(E) 36

11. When the positive even integer n is increased by 50 percent of itself, the result is between 10 and 20. What is one possible value of n ?

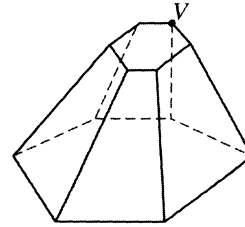
12. The perimeter of a rectangular plot of land is 250 meters. If the length of one side of the plot is 40 meters, what is the area of the plot, in square meters?

13. A school ordered \$600 worth of lightbulbs. Some of the lightbulbs cost \$1 each and the others cost \$2 each. If twice as many \$1 bulbs as \$2 bulbs were ordered, how many lightbulbs were ordered altogether?

14. If $4(x + y)(x - y) = 40$ and $x - y = 20$, what is the value of $x + y$?



15. In a rectangular coordinate system, the center of a circle has coordinates $(5, 12)$, and the circle touches the x -axis at one point only. What is the radius of the circle?



17. The three-dimensional figure above has two parallel bases and 18 edges. Line segments are to be drawn connecting vertex V with each of the other 11 vertices in the figure. How many of these segments will not lie on an edge of the figure?

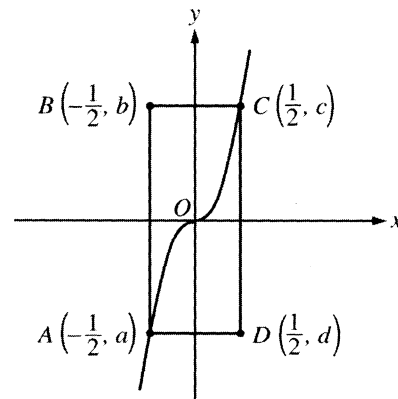
BRIDGETON VOTER REGISTRATION DATA

	Voting-Age Population	Number of Registered Voters
Men	1,200	1,000
Women	1,300	1,200

16. The table above gives the voter registration data for the town of Bridgeton at the time of a recent election. In the election, 40 percent of the voting-age population actually voted. If the turnout for an election is defined to be the fraction

$$\frac{\text{number who actually voted}}{\text{number of registered voters}},$$

what was the turnout for this election?



Note: Figure not drawn to scale.

18. In the figure above, $ABCD$ is a rectangle. Points A and C lie on the graph of $y = px^3$, where p is a constant. If the area of $ABCD$ is 4, what is the value of p ?

STOP

If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.



SECTION 6

Time — 25 minutes

35 Questions

Turn to Section 6 (page 6) of your answer sheet to answer the questions in this section.

Directions: For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

The following sentences test correctness and effectiveness of expression. Part of each sentence or the entire sentence is underlined; beneath each sentence are five ways of phrasing the underlined material. Choice A repeats the original phrasing; the other four choices are different. If you think the original phrasing produces a better sentence than any of the alternatives, select choice A; if not, select one of the other choices.

In making your selection, follow the requirements of standard written English; that is, pay attention to grammar, choice of words, sentence construction, and punctuation. Your selection should result in the most effective sentence—clear and precise, without awkwardness or ambiguity.

EXAMPLE:

Laura Ingalls Wilder published her first book and she was sixty-five years old then.

- (A) and she was sixty-five years old then
- (B) when she was sixty-five
- (C) at age sixty-five years old
- (D) upon the reaching of sixty-five years
- (E) at the time when she was sixty-five

A B C D E

1. One of the most popular and attractive new cars were available for so little money that people thought something was wrong.
 - (A) were available for so little money that people thought something was
 - (B) was available for so little money that people thought something were
 - (C) was available for so little money that people thought something has gone
 - (D) was available for so little money that people thought something was
 - (E) was selling for very little money, so people thought of it as something was
2. The tornado ripped through the central part of town, toppling small buildings, uprooting trees, and power lines were snapped.
 - (A) power lines were snapped
 - (B) power lines snapping
 - (C) snapping power lines
 - (D) snapped power lines
 - (E) power lines snapped
3. As I entered the Pantheon, a building that has existed in Rome since ancient times, my brother is turning to me to whisper that the great rotunda of the Pantheon was a haven of peace and harmony.
 - (A) is turning to me to whisper
 - (B) turned to me and whispered
 - (C) turns to me and is whispering
 - (D) turns and also whispers to me
 - (E) would turn and whisper to me
4. No one is more sorrier than me that you missed the awards ceremony.
 - (A) more sorrier than me
 - (B) sorrier than I
 - (C) more sorry like myself
 - (D) as sorry like I am
 - (E) sorrier but me
5. Many people were alarmed by the Supreme Court ruling that gave judges discretionary power to determine about closing trials to the public.
 - (A) about closing trials
 - (B) whether he or she ought to close trials
 - (C) whether trials should be closed
 - (D) if he or she should close trials
 - (E) the closing of trials, if they wish.

GO ON TO THE NEXT PAGE



6. The mountain's summit having been reached, the weary climbers gazed down upon a scene of indescribable grandeur.
- (A) The mountain's summit having been reached
 (B) The summit of the mountain being reached
 (C) At the mountain's summit, when they reached it
 (D) When they reached the mountain's summit
 (E) When having reached the mountain's summit
7. Whether the ancient Egyptians actually sailed or did not to South America remains uncertain, but Heyerdahl's Ra II expedition demonstrated that they could have done so.
- (A) Whether the ancient Egyptians actually sailed or did not
 (B) Whether in actuality the ancient Egyptians sailed or did not
 (C) The actuality of the sailing by the ancient Egyptians
 (D) That the ancient Egyptians actually sailed
 (E) The ancient Egyptians, their actual sailing
8. In 1969 Baldwin High School defeated Ross Academy in the district's first televised quiz bowl game, even so, they did not win again until 1983.
- (A) game, even so, they
 (B) game, so they
 (C) game, they
 (D) game; as a result, it
 (E) game, but it
9. Isolated by the sea, the aboriginal peoples of Australia had developed a unique culture long before the arrival of Europeans.
- (A) had developed a unique culture
 (B) had a unique culture and it developed
 (C) having developed a unique culture
 (D) have a unique culture, it developed
 (E) have a unique culture; development was
10. Although criticized by a few for her daredevil aviation escapades, most people viewed Amelia Earhart as a skillful pilot.
- (A) most people viewed Amelia Earhart as a skillful pilot
 (B) most people viewed Amelia Earhart to be a skillful pilot
 (C) a skillful pilot was what most people viewed Amelia Earhart as
 (D) Amelia Earhart was viewed by most people as a skillful pilot
 (E) Amelia Earhart, a skillful pilot in the view of most people
11. Among the Inuit peoples of arctic Canada, poetry contests are held to settle conflicts that might otherwise be disruptive to families and communities.
- (A) that might otherwise be disruptive to families and communities
 (B) that otherwise, to families and communities, were disrupting them
 (C) and they are otherwise disruptive to families and communities
 (D) by which families and communities were otherwise being disrupted
 (E) whereby families and communities that might otherwise be disrupted are not



The following sentences test your ability to recognize grammar and usage errors. Each sentence contains either a single error or no error at all. No sentence contains more than one error. The error, if there is one, is underlined and lettered. If the sentence contains an error, select the one underlined part that must be changed to make the sentence correct. If the sentence is correct, select choice E. In choosing answers, follow the requirements of standard written English.

EXAMPLE:

The other delegates and him immediately
 A B C
 accepted the resolution drafted by the
 D
 neutral states. No error
 E

(A) ● (C) (D) (E)

12. Brand-name prescription drugs are often more
 A
 familiar to consumers than generic drugs, but the
 B
 latter are not nearly as expensive than brand-name
 C D
 drugs. No error
 E
13. In 1508, the Spanish explorer Juan Ponce de Leon—
 A
the same Ponce de Leon who later would seek
 B C
 the fountain of youth—landed on Puerto Rico
accompanied by a small force. No error
 D E
14. Because they painted scenes of life as ordinary
 A
 people lived it, rather than scenes from myths,
 B C
 many nineteenth-century American artists differed
from earlier times. No error
 D E
15. Few issues of public policy are as likely to provoke
 A B
 widespread interest as that involving possible
 C
danger to the health or safety of children. No error
 D E
16. The young fish were very tiny, yet each of them ate
 A B
 many times its own weight in solid food every day.
 C D
No error
 E
17. In the opinion of the lecturer, a background in the
 A B
 history of the Middle Ages is not a condition necessary
in the enjoyment of medieval literature. No error
 C D E
18. Driving less frequently is one way to save energy;
 A
to turn off all appliances when they are not being
 B C
 used is another. No error
 D E
19. After Gertrude Ederle had swam the English Channel,
 A
 she was celebrated as the first woman ever
 B
to accomplish the feat. No error
 C D E

GO ON TO THE NEXT PAGE 



20. When a government agency encouraged the use

A

of high-grade recycled office paper, they helped

B

increase the availability of writing paper and

C

envelopes made from recycled paper. No error

D

E

21. Malaria, a disease which has been almost completely

A

eradicated in the United States, is still a threat

B

of travelers in some foreign countries. No error

C

D

E

22. If I am reading the editorial correct, the mayor is

A

B

deliberately avoiding any discussion of the tax-reform

C

bill until after the November elections. No error

D

E

23. The Papago Indians of southern Arizona take

justifiable pride in their traditional craft of

A

B

basket-weaving, an art that has brought them

C

fame throughout the Southwest. No error

D

E

24. The record left by fossils, the ancient remains of plants

and animals, provide scientists with their primary

A

B

source of information about prehistoric life.

C

D

No error

E

25. The exchange between the teacher and the student

promotes learning far different from that which

A

B

results as the student listens but does not participate.

C

D

No error

E

26. Studying the language and culture of a foreign

A

country is highly recommended to the tourist

B

who expect to learn from his or her vacation

C

D

abroad. No error

E

27. For we students, concern about impending

A

B

tuition hikes was even more acute than

C

apprehension about final exams. No error

D

E

28. The jury took offense at the prosecutor's mocking

A

tone but could deny neither the accuracy of the

B

C

charges or the seriousness of the crime. No error

D

E

29. Available through the school's guidance office

is a job directory and a list of job referral centers

A

that provide information for students in need of

B

C

D

employment. No error

E



Directions: The following passage is an early draft of an essay. Some parts of the passage need to be rewritten.

Read the passage and select the best answers for the questions that follow. Some questions are about particular sentences or parts of sentences and ask you to improve sentence structure or word choice. Other questions ask you to consider organization and development. In choosing answers, follow the requirements of standard written English.

Questions 30-35 are based on the following passage.

(1) I have started to wonder if there is a skunk sharing my family's home. (2) Although I've never seen one in our yard in the daytime, several times recently, around midnight, I have sniffed that familiar odor through the open bedroom window. (3) While usually unable to locate the source of it, even on a moonlit night. (4) However, twice, I got to the window in time to glimpse an indistinct black-and-white bundle scooting across the yard, heading away from the front corner of the house. (5) Whatever it is, it seemed that the creature has a burrow under our front porch.

(6) Sometime, probably in daylight, when I've gathered my courage and put on a gas mask, maybe I'll crawl under there for the purpose of looking around visually. (7) But what if it really is a skunk? (8) I know that a skunk's Latin name is *Mephitis mephitis*, and that skunks should not be confused with polecats. (9) Getting in a skunk's way, these facts will not help you much. (10) Welcome to Aromaville! (11) Evicting a skunk is probably not a pleasant task.

(12) Maybe it's not all that important to know for sure if it's a skunk. (13) In fact, maybe the best solution would be if we simply moved away.

30. In context, which of the following is the best version of the underlined portion of sentence 3 (reproduced below)?

While usually unable to locate the source of it, even on a moonlit night.

- (A) (As it is now)
- (B) Usually, however, I have been unable to locate its source
- (C) Usually, though, the source could not have been located
- (D) Having been unable, usually, to locate its source
- (E) Without being able to locate its source

31. Of the following, which is the best version of the underlined portion of sentence 5 below?

Whatever it is, it seemed that the creature has a burrow under our front porch.

- (A) (As it is now)
- (B) In spite of what it is, it seems that the creature has
- (C) The creature, whatever it was, seemingly having
- (D) It would seem, whatever it is, that it would have
- (E) Whatever the creature is, it seems to have

32. In the first paragraph (sentences 1-5), the author is primarily

- (A) informing the reader about the behavior of skunks
- (B) providing examples to argue a point
- (C) ridiculing those who dislike skunks
- (D) relating a story about personal experiences
- (E) casting doubt on a common misconception

33. Of the following, which is the best way to revise and combine the underlined portions of sentences 8 and 9 (reproduced below)?

I know that a skunk's Latin name is *Mephitis mephitis*, and that skunks should not be confused with polecats. Getting in a skunk's way, these facts will not help you much.

- (A) polecats, but getting in the way of a skunk
- (B) polecats, but if you get in a skunk's way
- (C) polecats; consequently, if you get in a skunk's way
- (D) polecats; then, to get in the way of a skunk
- (E) polecats: getting in a skunk's way

6



6

6



6

34. Which of the following should be done with sentence 11 (reproduced below)?

Evicting a skunk is probably not a pleasant task.

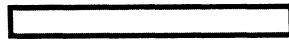
- (A) Insert the word “Definitely” at the beginning.
- (B) Delete it; the point has already been made.
- (C) Move it to the end of the essay as a summary statement.
- (D) Move it to the end of paragraph 1 (after sentence 5).
- (E) Move it to the beginning of the essay as an introduction.

35. The primary effect of the final paragraph (sentences 12 and 13) is to

- (A) continue the essay’s tone of playful humor
- (B) summarize the ideas introduced in the preceding paragraph
- (C) give an example to prove the point of the first paragraph
- (D) use persuasion to change the reader’s opinion
- (E) explain contradictions within the essay

STOP

If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.



SECTION 7
Time — 25 minutes
24 Questions

Turn to Section 7 (page 6) of your answer sheet to answer the questions in this section.

Directions: For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

Each sentence below has one or two blanks, each blank indicating that something has been omitted. Beneath the sentence are five words or sets of words labeled A through E. Choose the word or set of words that, when inserted in the sentence, best fits the meaning of the sentence as a whole.

Example:

Hoping to ----- the dispute, negotiators proposed a compromise that they felt would be ----- to both labor and management.

- (A) enforce . . useful
(B) end . . divisive
(C) overcome . . unattractive
(D) extend . . satisfactory
(E) resolve . . acceptable

A B C D E

1. O'Leary tolerates worms and snakes but is ----- about insects: he has an exaggerated fear of them.
(A) agnostic (B) eclectic (C) empiric
(D) phobic (E) quixotic
2. The challenge facing public health officials is to ----- an outbreak of disease and then ----- that school-children are immunized.
(A) foster . . provide
(B) predict . . allege
(C) sustain . . question
(D) effect . . ascertain
(E) anticipate . . ensure
3. Guests at the party found the general merriment infectious and were won over by the party's -----.
(A) presumption (B) gaiety
(C) conspicuousness (D) unexpectedness
(E) brevity
4. Demagogues do not deserve full blame for last summer's public hysteria: although they turned the mood to their political advantage, they did not actually ----- it.
(A) oppose (B) subdue (C) create
(D) postpone (E) confirm
5. Orangutans are ----- apes: they typically conduct most of their lives up in the trees of tropical rain forests.
(A) indigenous (B) transitory (C) recessive
(D) pliant (E) arboreal
6. Since establishing the Children's Defense Fund in 1973, Marian Wright Edelman has been an ----- advocate, steadfast and constant.
(A) unwitting (B) unswerving (C) inhibiting
(D) elusive (E) antagonistic
7. The author ----- the last act of her play to appease those critics who ----- the work for its brevity.
(A) eliminated . . extolled
(B) condensed . . censured
(C) expanded . . disparaged
(D) intensified . . glorified
(E) rearranged . . endorsed
8. The editorial claimed that the gubernatorial candidate lacked worldly wisdom and that this ----- would likely be his undoing.
(A) naïveté (B) furtiveness (C) venality
(D) indecisiveness (E) sarcasm

GO ON TO THE NEXT PAGE 



The passages below are followed by questions based on their content; questions following a pair of related passages may also be based on the relationship between the paired passages. Answer the questions on the basis of what is stated or implied in the passages and in any introductory material that may be provided.

Questions 9-10 are based on the following passage.

Line
5 When the tide was in and the water rose up to within
a foot of the lawn, we children boasted that we could fish
out of our bedroom windows. This was not quite true. But
it was true that, from our front lawn, the house was full of
waves. When the tide was up and the sun was shining, the
white front of the house was in movement with reflected
waves. The tall windows became so solid in color and
gold and blue, that the house seemed to be full of
sea; until, of course, one turned round and saw the real
10 sea, so miraculously real that it startled.

9. What does the narrator mean by the comment “the house was full of waves” (lines 4-5) ?
- (A) The house was decorated with a nautical theme.
 - (B) The children enjoyed drawing pictures of the sea.
 - (C) The house mirrored the movements of the sea.
 - (D) The basement of the house sometimes filled with water.
 - (E) The house appeared as if it had been damaged by the sea.
10. In context, the tone of lines 5-10 (“When . . . startled”) is best described as one of
- (A) awe and fear
 - (B) mischief and curiosity
 - (C) sadness and confusion
 - (D) wonder and delight
 - (E) uncertainty and impatience

Questions 11-12 are based on the following passage.

Line
5 Recently excavated artifacts from Pakistan have inspired
a reevaluation of one of the great early urban cultures—the
enigmatic Indus Valley civilization, one of the four great
early Old World state-cultures, along with Mesopotamia,
Egypt, and China’s Yellow River civilization. Much less
is known about the Indus civilization than these other states
because linguists have yet to decipher the Harappan script
found on recovered objects. Attempting to understand these
vanished people and their social structures, my colleagues
and I have drawn clues from the miscellaneous objects we
10 uncover and sites we excavate. In this effort, the Harappan
writings have not been totally useless; we have gleaned
insights by examining the context of the writing’s use.

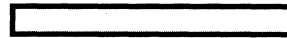
11. A major assumption of the passage is that

- (A) the spot within an excavated site where an object is found is a clue to its social significance
- (B) it is a great help in understanding a civilization to be able to decode its language
- (C) there are similarities among the social structures of ancient urban civilizations
- (D) an effective archaeologist should learn the language of the civilization being studied
- (E) ancient languages are all very difficult to decipher

12. The author’s tone in the final sentence is best described as

- (A) frustrated
- (B) resigned
- (C) ambivalent
- (D) somewhat encouraged
- (E) unshakably confident

GO ON TO THE NEXT PAGE 



Questions 13-24 are based on the following passages.

These two passages, written in the 1990's, address the ways in which environmental concerns have been made public.

Passage 1

Line 5 There is nothing wrong with attempting to make the often difficult and complex findings of science available to a wider audience, but environmental popularizers often present a one-sided picture and hide important scientific disagreements on issues relevant to environmental quality. The zeal to draw firm conclusions from the results of scientific research frequently prompts speculative matters to be left out or presented with greater authority than they deserve. The partisanship implicit in these failures is most often excused by the originality of the author's perspective on the subject or a passionate commitment to do good. How could one regret the "minor" confusions that might arise from such noble impulses?

15 But using one-sided and incomplete accounts of the state of scientific knowledge has led to projections, predictions, and warnings that, not surprisingly, have been falsified by events. No one knows what the future holds. But reports that Lake Erie and the oceans would be dead by now were surely greatly exaggerated. The United States is wracked neither by food riots nor a great epidemic of pesticide-induced cancers. Birds continue to sing in the mornings, and they do not have to face the rigors of either an ice age caused by humans or a global warming caused by the heat of increased energy production and consumption. With what confidence should we look upon the projected horrors of global warming, rain forest destruction, or toxic waste, given the record of the past?

30 This failure of prophecy may be an intellectual weakness, yet prophecy continues because it provides the popularizers with a profound rhetorical strength: it releases the power of fear. The central role of this sentiment in political rhetoric has long been understood. Arousing fear, though, is not always easy. Even as far back as Aristotle, it was observed that we fear things less the more distant they are. Hence when Churchill sought to rouse the British, he brought the Germans to the beaches, landing grounds, fields, streets, and hills of "our island." So, too, to arouse fears the popularizers have to present pictures of imminent calamities that could befall their relatively comfortable and well-off readers. Environmental disasters like endemic waterborne disease due to inadequate sewage treatment in faraway nations do not fit this category. The prospect of my getting skin cancer due to ozone depletion does. Without such immediacy, one could only arouse a sentiment like compassion, which is not as strong as fear.

Passage 2

50 Few ideas are more deeply entrenched in our political culture than that of impending ecological doom. Beginning in 1962, when Rachel Carson warned readers that pollution was a threat to all life on the planet, pessimistic appraisals of the health of the environment have been issued with increasing urgency. And yet, thanks in large part to her warnings, a powerful political movement was born and a series of landmark environmental bills became law: the Clean Air Act (1970), the Clean Water Act (1972), and the Endangered Species Act (1973). These laws and their equivalents in Western Europe, along with a vast array of private efforts, have been a stunning success. In both the United States and Europe, environmental trends are, for the most part, positive; and environmental regulations, far from being burdensome and expensive, have proved to be strikingly effective, have cost less than was anticipated, and have made the economies of the countries that have put them into effect stronger, not weaker.

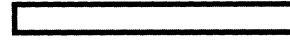
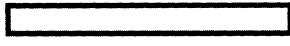
65 Nevertheless, the vocabulary of environmentalism has continued to be dominated by images of futility, crisis, and decline. In 1988, Thomas Berry, an essayist popular among ecologists, wrote that "the planet cannot long endure present modes of human exploitation." In 1990, Gaylord Nelson, the former senator from Wisconsin who was a prime mover behind the first Earth Day in 1970, said that environmental problems "are a greater threat to Earth's life-sustaining systems than a nuclear war." And in 1993 Vice President Al Gore said that the planet now was suffering "grave and perhaps irreparable damage." But, at least insofar as the Western world is concerned, this line of thought is an anachronism, rendered obsolete by its own success. Nor are environmentalists the only people reluctant to acknowledge the good news; advocates at both ends of the political spectrum, each side for its own reasons, seem to have tacitly agreed to play it down. The Left is afraid of the environmental good news because it undercuts stylish pessimism; the Right is afraid of the good news because it shows that government regulations might occasionally amount to something other than wickedness incarnate, and actually produce benefits at an affordable cost.

85 This is a bad bargain—for liberals especially. Their philosophy is under siege on many fronts—crime, welfare, medical care, and education, among others. So why not trumpet the astonishing, and continuing, record of success in environmental protection?

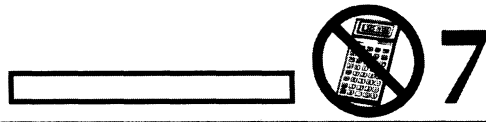
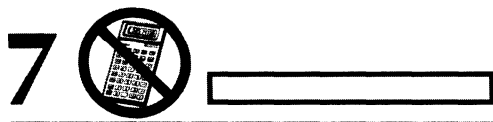
13. In line 14, "state" most nearly means

- (A) rank
- (B) excitement
- (C) territory
- (D) government
- (E) condition

GO ON TO THE NEXT PAGE



14. The author of Passage 1 indicates that “food riots” (line 20) and “pesticide-induced cancers” (lines 20-21) are
- (A) problems the nation will ultimately encounter
 - (B) problems facing underdeveloped areas of the world
 - (C) among the predictions of environmental popularizers
 - (D) among the consequences of global warming
 - (E) potential results of the pollution of lakes and oceans
15. The term “rigors” in line 22 refers to the
- (A) efforts needed for environmental cleanup
 - (B) stringent regulations put in place since 1970
 - (C) moralistic attitudes of many environmental popularizers
 - (D) projected consequences of environmental decline
 - (E) ability of nature to recover from environmental abuse
16. The author of Passage 1 uses the example in lines 42-43 (“The prospect . . . does”) to
- (A) describe a personal experience
 - (B) imply that the subject should not be frightening
 - (C) elicit sympathy from the reader
 - (D) demonstrate a psychological fact
 - (E) emphasize the prevalence of a crisis
17. The first paragraph of Passage 2 (lines 46-63) presents
- (A) an elaborate speculation
 - (B) a historical summary
 - (C) a list of sources
 - (D) an introductory aside
 - (E) a scientific theory
18. In Passage 2, the phrase “rendered . . . success” (line 76) indicates that
- (A) the desires of environmentalists have changed over the years
 - (B) the success of the environmental movement has frightened conservative politicians
 - (C) the accomplishments of the environmental movement have made its public pronouncements irrelevant
 - (D) environmentalists often appear old-fashioned in a world primarily concerned with technology
 - (E) environmentalism plays on the political concerns of both liberals and conservatives
19. The phrase “wickedness incarnate” (line 84) is used to
- (A) cast aspersions on bureaucratic ineptitude
 - (B) parody the language used by people with certain political leanings
 - (C) convey humorously a deep longing of the author
 - (D) rail against blatant polluters of the environment
 - (E) suggest the quasi-religious underpinnings of environmentalism
20. The attitudes toward environmentalism of the authors of Passage 1 and Passage 2, respectively, are
- (A) outrage and resentful disappointment
 - (B) skepticism and qualified admiration
 - (C) indifference and urgent concern
 - (D) alarm and grudging acceptance
 - (E) open-mindedness and staunch advocacy
21. What would the author of Passage 2 most likely say about the sort of reports mentioned in lines 17-19 of Passage 1 ?
- (A) They were unethical attempts to manipulate public opinion.
 - (B) They reflected the scientific uncertainty of their era.
 - (C) They seem quite naïve in retrospect.
 - (D) They served a purpose in their time.
 - (E) They are needed today more than ever.
22. The author of Passage 1 would most likely argue that the “line of thought” (line 75) illustrated in Passage 2 was
- (A) once original but is now trite
 - (B) once wholly based on science but is now driven by politics
 - (C) in no way meant to be taken literally
 - (D) of no significance to faraway nations
 - (E) of dubious validity from the beginning



23. How would the author of Passage 1 be most likely to answer the question posed at the end of Passage 2 ?
- (A) Because good news is less of a stimulus to action than are dire warnings
 - (B) Because environmentalists fear alienating either the Left or the Right
 - (C) Because environmentalists themselves are divided about whether their task has been accomplished
 - (D) Because boasting is still considered inappropriate by the liberal elite
 - (E) Because laypersons lack the training to evaluate the environmental record

24. The authors of Passage 1 and Passage 2 agree that
- (A) the state of the environment continues to worsen
 - (B) the environmental movement lacks political influence
 - (C) most of the information citizens receive about the environment is overly technical
 - (D) spokespeople for the environmental movement are not sufficiently knowledgeable
 - (E) the environmental movement employs exaggerated rhetoric

S T O P

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.**



SECTION 8

Time — 20 minutes

16 Questions

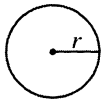
Turn to Section 8 (page 7) of your answer sheet to answer the questions in this section.

Directions: For this section, solve each problem and decide which is the best of the choices given. Fill in the corresponding circle on the answer sheet. You may use any available space for scratchwork.

Notes

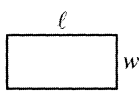
- The use of a calculator is permitted.
- All numbers used are real numbers.
- Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is not drawn to scale. All figures lie in a plane unless otherwise indicated.
- Unless otherwise specified, the domain of any function f is assumed to be the set of all real numbers x for which $f(x)$ is a real number.

Reference Information

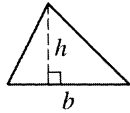


$$A = \pi r^2$$

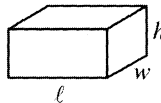
$$C = 2\pi r$$



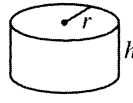
$$A = \ell w$$



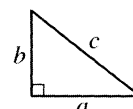
$$A = \frac{1}{2}bh$$



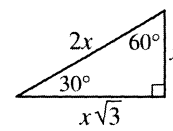
$$V = \ell wh$$



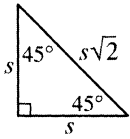
$$V = \pi r^2 h$$



$$c^2 = a^2 + b^2$$



Special Right Triangles



The number of degrees of arc in a circle is 360.

The sum of the measures in degrees of the angles of a triangle is 180.

1. If $3(n - 4) = 18$, what is the value of n ?

- (A) $\frac{14}{3}$
 (B) $\frac{22}{3}$
 (C) 6
 (D) 10
 (E) 22

2. For a class ring, each senior can choose from 4 types of stones and 3 types of metals. How many combinations of a stone and a metal are there?

- (A) 7
 (B) 8
 (C) 10
 (D) 12
 (E) 16

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The sum of $3a$ and the square root of b is equal to the square of the sum of a and b .

3. Which of the following is an expression for the statement above?

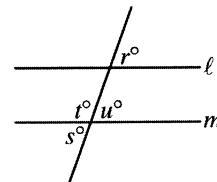
- (A) $3a + b^2 = \sqrt{a + b}$
 (B) $3a + \sqrt{b} = (a + b)^2$
 (C) $3a + \sqrt{b} = a^2 + b^2$
 (D) $\sqrt{3a + b} = a^2 + b^2$
 (E) $\sqrt{3a} + \sqrt{b} = (a + b)^2$

4. Kerry has a cordless telephone receiver that can operate within a range of 1,000 feet from the telephone's base. Kerry takes the receiver from the base and walks 800 feet due north. From that point she walks due east and stops at the maximum range of the receiver. In which of the following directions can Kerry walk and still be within the range of the receiver?

- I. Due north
 II. Due south
 III. Due west
- (A) II only
 (B) III only
 (C) I and II
 (D) I and III
 (E) II and III

5. If $\frac{x}{4} = \frac{2x}{a}$ and $x \neq 0$, what is the value of a ?

- (A) 8
 (B) 4
 (C) 2
 (D) $\frac{1}{2}$
 (E) $\frac{1}{4}$



Note: Figure not drawn to scale.

6. In the figure above, $l \parallel m$ and $r = 50$. What is the value of $s + t + u$?
- (A) 230
 (B) 240
 (C) 250
 (D) 270
 (E) 310

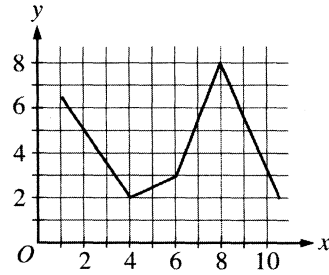


7. In the xy -coordinate plane, line ℓ is perpendicular to the y -axis and passes through the point $(5, -3)$. Which of the following is an equation of line ℓ ?
- (A) $x = 0$
(B) $x = 5$
(C) $y = -3$
(D) $y + 3 = x + 5$
(E) $y - 3 = x + 5$
-
8. The total daily profit p , in dollars, from producing and selling x units of a certain product is given by the function $p(x) = 17x - (10x + b)$, where b is a constant. If 300 units were produced and sold yesterday for a total profit of \$1,900, what is the value of b ?
- (A) -200
(B) -100
(C) 0
(D) 100
(E) 200
9. The number that results when an integer is multiplied by itself CANNOT end in which of the following digits?
- (A) 1
(B) 4
(C) 5
(D) 6
(E) 8
-
10. A bag contains only red marbles, blue marbles, and yellow marbles. The probability of randomly selecting a red marble from this bag is $\frac{1}{4}$, and the probability of randomly selecting a blue marble is $\frac{1}{6}$. Which of the following could be the total number of marbles in the bag?
- (A) 10
(B) 12
(C) 18
(D) 20
(E) 30



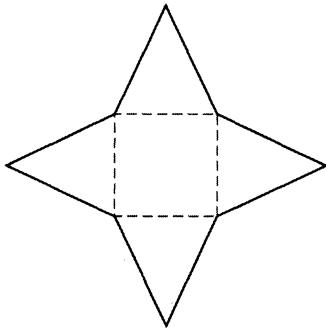
11. When the sum of a list of prices is divided by the average (arithmetic mean) of the prices, the result is k . What does k represent?

- (A) The sum of the prices
- (B) Half of the sum of the prices
- (C) The average of the prices
- (D) The number of prices
- (E) Half of the number of prices



13. The graph of $y = g(x)$ is shown above. If $g(2) = k$, which of the following could be the value of $g(k)$?

- (A) 2
- (B) 2.5
- (C) 3
- (D) 3.5
- (E) 5

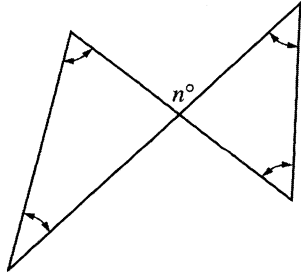


12. If the area of the square in the figure above is 81 and the perimeter of each of the 4 triangles is 30, what is the perimeter of the figure outlined by the solid line?

- (A) 36
- (B) 72
- (C) 80
- (D) 84
- (E) 120

14. If $0 \leq x \leq 8$ and $-1 \leq y \leq 3$, which of the following gives the set of all possible values of xy ?

- (A) $xy = 4$
- (B) $0 \leq xy \leq 24$
- (C) $-1 \leq xy \leq 11$
- (D) $-1 \leq xy \leq 24$
- (E) $-8 \leq xy \leq 24$



15. In the figure above, what is the sum, in terms of n , of the degree measures of the four angles marked with arrows?

- (A) n
- (B) $2n$
- (C) $180 - n$
- (D) $360 - n$
- (E) $360 - 2n$

16. After the first term, each term in a sequence is 3 greater than $\frac{1}{3}$ of the preceding term. If t is the first term of the sequence and $t \neq 0$, what is the ratio of the second term to the first term?

- (A) $\frac{t + 9}{3}$
- (B) $\frac{t + 3}{3}$
- (C) $\frac{t + 9}{3t}$
- (D) $\frac{t + 3}{3t}$
- (E) $\frac{9 - 2t}{3}$

STOP

If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.



SECTION 9

Time — 20 minutes

19 Questions

Turn to Section 9 (page 7) of your answer sheet to answer the questions in this section.

Directions: For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

Each sentence below has one or two blanks, each blank indicating that something has been omitted. Beneath the sentence are five words or sets of words labeled A through E. Choose the word or set of words that, when inserted in the sentence, best fits the meaning of the sentence as a whole.

Example:

Hoping to ----- the dispute, negotiators proposed a compromise that they felt would be ----- to both labor and management.

- (A) enforce . . useful
 (B) end . . divisive
 (C) overcome . . unattractive
 (D) extend . . satisfactory
 (E) resolve . . acceptable

A B C D E

- In the 1960's Americans ----- Jean Toomer's 1923 book *Cane* when an interest in Black culture ----- many of them to read the classics of Black fiction.

(A) neglected . . coerced
 (B) rediscovered . . inspired
 (C) limited . . required
 (D) collected . . allowed
 (E) circulated . . disinclined
- In addition to ----- stacks of résumés and references, some employers want to ----- the hiring process by employing graphologists to study applicants' handwriting for character analysis.

(A) evaluating . . supplement
 (B) envisioning . . circumvent
 (C) ignoring . . depersonalize
 (D) ameliorating . . revisit
 (E) condoning . . belabor
- Tame koala bears handled by tourists are -----, but wild koalas are hard to control and typically require two people to hold them.

(A) mischievous (B) gluttonous (C) supple
 (D) adroit (E) docile
- Ms. Rivers gave a performance of noteworthy -----: her piano repertoire ranged from classical music to jazz.

(A) intensity (B) precision (C) scope
 (D) polish (E) duration
- The skepticism of some ancient philosophers ----- and helps to elucidate varieties of nihilism that appeared in the early nineteenth century.

(A) suppresses (B) disseminates
 (C) undermines (D) confounds
 (E) foreshadows
- Some critics of congressional proceedings contend that important debates on issues are marred by a ----- of denunciations and accusations that precludes ----- discourse.

(A) repertory . . expendable
 (B) paucity . . meaningful
 (C) barrage . . libelous
 (D) rehash . . repetitive
 (E) cacophony . . orderly

GO ON TO THE NEXT PAGE 



The passage below is followed by questions based on its content. Answer the questions on the basis of what is stated or implied in the passage and in any introductory material that may be provided.

Questions 7-19 are based on the following passage.

Frederick Douglass (1817-1895), who escaped from slavery, became an author and publisher and was internationally known for his instrumental role in the abolitionist movement.

In spite of the ridicule that various newspapers aimed at the women's movement, Frederick Douglass continued to lend it his active support. Indeed, few women's rights conventions were held during the 1850's at which Douglass was not a featured speaker and whose proceedings were not fully reported in his paper. Invariably, the notice would be accompanied by an editorial comment hailing the meeting and expressing the editor's hope that it "will have a powerful effect on the public's mind." In 1853, when Douglass was considering changing the name of his newspaper, he rejected the proposed title, *The Brotherhood*, because it "implied the exclusion of the sisterhood." He called it *Frederick Douglass' Paper*, and underneath the title were the words "All Rights For All!"

Because women were not permitted to speak at mass meetings of state temperance associations,¹ women in New York formed the Woman's State Temperance Society, with Elizabeth Cady Stanton as president. Douglass supported the society but took issue with the move led by secretary Amelia Bloomer to limit to women the right to hold its offices. He aligned himself with Stanton and Susan B. Anthony in opposing this as a violation of "the principle of human equality"—a violation, in short, of men's rights. Douglass felt that by excluding men from office the society would lose supporters in the battle against those in the temperance movement who wished to deny women equal rights. How, he asked, could women effectively contend for equality in the movement when they denied it to men? In June 1853, the society accepted the logic of this position and admitted men to office.

Douglass learned much from women with whom he associated at the national and state women's rights conventions. At one time, he had entertained serious doubts about wives being given the right to share equally with their husbands the disposition of property, since "the husband labors hard" while the wife might not be earning money. But his discussions with pioneers of the women's rights movement convinced him that even though wives were not paid for their domestic labors, their work was as important to the family as that of their husbands. Once convinced, he acted. He wrote the call for the 1853 convention in Rochester, New York, which demanded not only that women be paid equally with men for their work, but also that women, including married women, have equal rights with men in the ownership and disposition of property. In his newspaper that year, Douglass urged state legislation calling for passage of a law requiring equality in "the holding, and division of real and personal property."

On one issue, however, Douglass refused to budge. He was critical of women's rights leaders who addressed audiences from which Black people were barred. His particular target was Lucy Stone. Douglass often praised this abolitionist and veteran fighter for equal rights for women, but he criticized her for not having canceled a lecture in 1853 at Philadelphia's Music Hall when she discovered that Black people would be excluded. Later, he was more severe when he learned that she had invited Senator Stephen A. Douglas of Illinois, one of the architects of the infamous Fugitive Slave Act of 1850,² to join the women who were to meet in Chicago in 1859 to publicize the women's rights cause. Frederick Douglass bluntly accused Stone of willingness to advance women's rights on the back of "the defenceless slave woman" who "has also to bear the ten thousand wrongs of slavery in addition to the common wrongs of woman."

Douglass' disputes with some of the women's rights leaders went beyond the question of their appearance before segregated audiences. Women like Stanton and Anthony were close to abolitionist William Lloyd Garrison. When Douglass split with Garrison over the latter's reliance on words and "moral suasion" as the major route to abolition, as well as over Garrison's opposition to anti-slavery political action, some women's rights leaders grew cool toward Douglass.

Although Susan B. Anthony had sided with Garrison, she solicited Douglass' support in her campaign against capital punishment. She circulated a petition for a meeting in 1858 to protest an impending execution and to support a law making life imprisonment the punishment for capital crimes. Long an opponent of capital punishment, Douglass signed the petition, prepared a set of resolutions on the issue, and agreed to take over for the scheduled chair, who had been intimidated by mob violence. Douglass' conduct won over even those women who had allied themselves with Anthony and Garrison.

Thus, on the eve of the Civil War, Douglass' relationship with the women's movement was once again cordial. Although this situation was to change after the war, Douglass' influence had helped the women's rights movement become more sensitive to the issue of prejudice against Black Americans.

¹ Temperance associations were groups that advocated laws to control the use of alcoholic beverages.

² The Fugitive Slave Act of 1850 authorized slaveholders to reclaim runaway slaves.



7. The passage provides the most information about Douglass'
- (A) loyalty to old friends
 - (B) refusal to change old ideas
 - (C) fluent writing style
 - (D) political activism
 - (E) tactful rhetoric
8. In context, the word "hailing" (line 7) most nearly means
- (A) pouring down on
 - (B) audibly greeting
 - (C) summoning
 - (D) originating
 - (E) praising
9. The discussion of the naming of Douglass' newspaper (lines 9-14) suggests that Douglass was
- (A) very effective at persuading others to adopt his point of view
 - (B) more committed to women's rights than he was to other reform movements
 - (C) concerned that his paper not receive the same kind of ridicule that women's rights publications had
 - (D) a reformer who recognized the similarity among the goals of different causes
 - (E) eager to publicize the recent successes of the women's rights movement
10. The passage suggests that Stanton and Anthony prevailed against Bloomer (lines 21-30) because their position
- (A) defied the male status quo
 - (B) asserted women's political rights
 - (C) opposed Douglass' ideas
 - (D) was recognized as being politically wise
 - (E) had financial consequences
11. The discussion of Douglass' position on property rights for women (lines 33-48) suggests that Douglass
- (A) was extremely adept at political negotiation
 - (B) was flexible enough to change his views
 - (C) sided with women's rights leaders on this issue so that they would support him on abolition
 - (D) believed that causes should be tackled one at a time
 - (E) believed that state laws could be easily changed
12. In context, the phrase "disposition of" (line 45) most nearly means
- (A) exploration of
 - (B) safeguarding of
 - (C) control over
 - (D) characteristics of
 - (E) payment for
13. In lines 49-65, the passage mainly suggests which of the following about Lucy Stone?
- (A) She allowed one of the two causes she endorsed to supersede the other.
 - (B) Her courageous actions consistently won Frederick Douglass' respect.
 - (C) She was willing to compromise for the sake of abolition.
 - (D) She and Stephen Douglas had little in common politically.
 - (E) Her political inexperience contributed to certain errors in judgment.
14. Douglass probably believed that using Stephen A. Douglas to publicize women's rights amounted to
- (A) allowing men to influence women's associations
 - (B) supporting the repeal of the Fugitive Slave Act of 1850
 - (C) contradicting the philosophy of temperance
 - (D) inadvertently sacrificing the gains that women had made
 - (E) tacitly exploiting Black women who were slaves
15. Douglass probably regarded the technique of "moral suasion" (line 71) as
- (A) suitable for only the capital-punishment cause
 - (B) preferable to lengthy political debate
 - (C) less desirable than direct action
 - (D) too closely associated with the temperance movement
 - (E) too subtle for most mass meetings
16. Women's rights leaders most likely "grew cool toward Douglass" (lines 73-74) because they
- (A) were experiencing dissension among their ranks
 - (B) preferred Garrison's political approach
 - (C) strongly favored the use of civil disobedience
 - (D) felt that Douglass had not been contributing actively to their movement
 - (E) realized that Douglass had stopped publicizing their concerns



17. As presented in the passage, Douglass' views coincided most consistently with those of

- (A) Stephen A. Douglas
- (B) William Lloyd Garrison
- (C) Amelia Bloomer
- (D) Lucy Stone
- (E) Susan B. Anthony

18. The author apparently believes which of the following about the interaction between the abolitionist and the women's rights movements?

- (A) It helped both groups broaden their perspectives in spite of frequent friction between them.
- (B) It seemed to many to be productive but actually caused both groups to make their goals too general.
- (C) It was natural, since both groups got their start at the same time.
- (D) It was rewarding for members of both groups but made both less popular with the public.
- (E) It was politically expedient for both groups in spite of their reluctance to work together.

19. According to the passage, Douglass most consistently opposed

- (A) using the press to criticize the women's and abolitionist movements
- (B) allowing men to hold office in women's state temperance associations
- (C) pay scales that were higher for men than for women
- (D) neglecting the rights of other groups while furthering the rights of women
- (E) property laws that gave men more rights than they gave women

STOP

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.**



SECTION 10
Time — 10 minutes
14 Questions

Turn to Section 10 (page 7) of your answer sheet to answer the questions in this section.

Directions: For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

The following sentences test correctness and effectiveness of expression. Part of each sentence or the entire sentence is underlined; beneath each sentence are five ways of phrasing the underlined material. Choice A repeats the original phrasing; the other four choices are different. If you think the original phrasing produces a better sentence than any of the alternatives, select choice A; if not, select one of the other choices.

In making your selection, follow the requirements of standard written English; that is, pay attention to grammar, choice of words, sentence construction, and punctuation. Your selection should result in the most effective sentence—clear and precise, without awkwardness or ambiguity.

EXAMPLE:

Laura Ingalls Wilder published her first book and she was sixty-five years old then.

- (A) and she was sixty-five years old then
- (B) when she was sixty-five
- (C) at age sixty-five years old
- (D) upon the reaching of sixty-five years
- (E) at the time when she was sixty-five

(A) ● (C) (D) (E)

1. For as many as twenty years and more Joseph Conrad lived the life of a sailor.
- (A) For as many as twenty years and more
 - (B) For not much more than about twenty years
 - (C) For a little over twenty years and more
 - (D) For twenty years and then some
 - (E) For more than twenty years

2. The duties of a firefighter are often as dangerous as a police officer.
- (A) as a police officer
 - (B) as those of a police officer
 - (C) like a police officer
 - (D) such as a police officer
 - (E) like a police officer's
3. Pearl Buck, one of the most popular writers of her day, winning the Nobel Prize in Literature in 1938 for her novels about China.
- (A) day, winning the Nobel Prize in Literature in 1938 for her novels about China
 - (B) day, winning the Nobel Prize in Literature, which she won in 1938 for her novels about China
 - (C) day, and she won the Nobel Prize in Literature in 1938 for her novels about China
 - (D) day, won the Nobel Prize in Literature in 1938 for her novels about China
 - (E) day, her novels about China bringing her the Nobel Prize in Literature in 1938
4. The first world computer chess championship, held in Stockholm, was won by a Russian computer program called Kaissa, and there were four Kaissa victories and no defeats.
- (A) Kaissa, and there were four Kaissa victories and no defeats
 - (B) Kaissa, which had four victories and no defeats
 - (C) Kaissa, having four victories and with no defeats
 - (D) Kaissa, which was victorious four times and no defeats
 - (E) Kaissa; it was won by four victories and no defeats

GO ON TO THE NEXT PAGE



5. Anyone who has high motivation or is reasonably intelligent can learn to play a competent game of chess.
- has high motivation or is reasonably intelligent
 - has either high motivation or else intelligence in reasonable amounts
 - is highly motivated or who has reasonable intelligence instead
 - is highly motivated or reasonably intelligent
 - has high motivation or else reasonable amounts of intelligence
6. Although Jonathan is very much interested in Mexican culture, he does not speak Spanish and has never visited Mexico.
- he does not speak Spanish and has never visited Mexico
 - it is without being able to speak Spanish or having visited Mexico
 - he does not speak Spanish and has never visited there
 - he does not speak Spanish nor has he ever visited there
 - it is without speaking Spanish nor having visited there
7. The more you eat of convenience foods, the more our taste buds will prefer chemical flavors to natural ones.
- The more you eat of convenience foods
 - The more we eat convenience foods
 - The more convenience foods are eaten
 - As the use of convenience foods increases
 - As people eat more convenience foods
8. Having Florence Nightingale as their leader and a growing awareness of the need for cleanliness helped to bring about the establishment of standards of hygiene in hospitals.
- Having Florence Nightingale as their leader
 - Having the leadership of Florence Nightingale's
 - Florence Nightingale as their leader
 - To be led by Florence Nightingale
 - The leadership of Florence Nightingale
9. An expedition was sent in 1949 to check a Turkish villager's reporting he had seen the remains of Noah's ark on Mount Ararat.
- a Turkish villager's reporting
 - the report of a Turkish villager that
 - the reporting of a Turkish villager
 - that a Turkish villager who reported
 - the Turkish villager report saying
10. Many communities in my state are forming neighborhood watch programs, for it will deter criminals.
- programs, for it will deter
 - programs, in which it will deter
 - programs that will deter
 - programs for the deterrence of
 - programs being able to deter
11. Friends of Dreiser reported that he was fired from his first job for the reason that his news stories were sympathetic always for the poor.
- for the reason that his news stories were sympathetic always for the poor
 - since his news stories for the poor that were always sympathetic
 - because his sympathy to the poor was always in his news stories
 - the fact being that his news stories were always sympathetic about the poor
 - because his news stories were always sympathetic to the poor
12. An article suggests that *The Great Gatsby* was not read during the 1930's, the reason was that the novel described a lifestyle made extinct and frivolous by the current Great Depression.
- 1930's, the reason was that the novel described a lifestyle made extinct and frivolous
 - 1930's, it is describing a lifestyle that was made an extinct and frivolous one
 - 1930's; describing a lifestyle made extinct and frivolous
 - 1930's because the novel described a lifestyle made extinct and frivolous
 - 1930's because its description had been of an extinct and frivolous lifestyle, caused by



13. Computers compiling statistics for scientists have supplied a deluge of information, and it has changed the way that research is conducted.
- (A) a deluge of information, and it has
 - (B) a great deal of information, and that is
 - (C) so much information; it is, therefore
 - (D) so much information that they have
 - (E) so much information, which they have been
14. Of all the states represented at the conference, the governor of Missouri was the only one to present plans for enforcing the new regulations.
- (A) the governor of Missouri was the only one to present
 - (B) making the governor from Missouri the only one to present
 - (C) Missouri's governor only presented
 - (D) Missouri's governor presented the only
 - (E) Missouri was the only one whose governor presented

STOP

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section in the test.**