Form Codes AEFA, BWFA, CFFA

CollegeBoard

The SAT®

Reasoning Test

Question-and-Answer Service
January 2009 Administration

INSIDE:

- **Test questions and correct answers**
- **The difficulty level for each question**
- **Your essay prompt and all other essay prompts administered on your test day**
- **Instructions for scoring your test**
- **Suggestions for using this report**

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SAT®

For CUUS

Using Your Question-and-Answer Service (QAS) Report

This booklet contains the SAT® you took in January 2009, starting with all the essay prompts given in January, including the one you answered. It also includes scoring information. If the SAT you took included an unscored "equating" section, this booklet will not include that section.

Reviewing Your SAT Results

To make the best use of your personalized QAS report, we suggest that you:

- Read each question in the booklet, then check the report for the type of question, the correct answer, how you answered it, and the difficulty level.
- Analyze test questions you answered incorrectly to understand why your answer was incorrect. Check to see whether you might have misread the question or mismarked the answer.
- Keep track of how you did on the different types of questions (as labeled on your QAS report), either by using the table below or by printing your online score report at **www.collegeboard.com/mysat**. This can help you understand your academic strengths and identify areas for improvement.

Section	Type of Question	Number Correct	Number Incorrect	Number Omitted
Critical Reading	C Sentence completion			
	R Passage-based reading			
Mathematics	N Number and operations			
	A Algebra and functions			
	G Geometry and measurement			
	D Data analysis, statistics, and probability			
Writing Multiple-Choice	S Improving sentences			
	E Identifying sentence errors			
	P Improving paragraphs			

Reviewing Your Essay

View a copy of your essay online at **www.collegeboard.com/viewessay**. On the practice sheets in the back of this booklet, you can try writing your essay again or practice writing an essay for one of the other prompts in this booklet.

Scoring Your Test

Use the Scoring Worksheet, SAT Essay Scoring Guide, and score conversion tables at the back of this booklet to try scoring your test. Use the "Form Code" shown at the top of your personalized QAS report to locate your particular score conversion tables. The Scoring Worksheet and score conversion tables are specific to the test you took. Do not try to score any other tests using them.

Preparing to Take the SAT Again

Taking the SAT again might be to your advantage. Now that you're familiar with the test, you're more prepared for the kinds of questions on it. You're also more comfortable with the test-taking process, including the time limits. On average, students who take the SAT a second time increase their combined critical reading, mathematics, and writing scores by approximately 40 points.

The best way to prepare for the SAT is to take challenging high school classes, read extensively, and practice writing as often as possible. For practice questions and approaches and other **free** information about the SAT, visit SAT Skills Insight™ at **www.collegeboard.com/satskillsinsight**. It provides you with the types of skills that are tested on the SAT, suggestions for improvement, and sample SAT questions and answers to help you do better in the classroom, on the test and in college. Then, when you are ready, you can register to take the SAT again at **www.collegeboard.com/mysat**.

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ESSAY
Time — 25 minutes

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.**
- **If your essay does not reflect your original and individual work, your test scores may be canceled.**

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.

> Planning lets people impose order on the chaotic processes of making or doing something new. Too much planning, however, can lead people to follow the same predetermined course of action, to do things the same way they were done before. Creative thinking is about breaking free from the way that things have always been. That is why it is vital for people to know the difference between good planning and too much planning.
>
> Adapted from Twyla Tharp, *The Creative Habit*

Assignment: Does planning interfere with creativity? 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.
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> Most people underestimate their own abilities. They tend to remember their failures more vividly than their successes, and for this reason they have unrealistically low expectations about what they are capable of. Those individuals who distinguish themselves through great accomplishments are usually no more talented than the average person: they simply set higher standards for themselves, since they have higher expectations about what they can do.

Assignment: Do highly accomplished people achieve more than others mainly because they expect more of themselves? 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.

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- **If your essay does not reflect your original and individual work, your test scores may be canceled.**

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.

> People are taught that they should not go back on their decisions. In fact, our society supports the notion that to change your mind is evidence of weakness and unreliability, leading many people to say, "Once I decide, I decide!" But why do people make such a statement? If factors, feelings, and ideas change, isn't the ability to make a new decision evidence of flexibility, adaptability, and strength?
>
> Adapted from Theodore I. Rubin, *Compassion and Self-Hate*

Assignment: Should people change their decisions when circumstances change, or is it best for them to stick with their original decisions? 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.
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ESSAY

Time — 25 minutes

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- **An off-topic essay will receive a score of zero.**
- **If your essay does not reflect your original and individual work, your test scores may be canceled.**

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 history of human achievement is filled with stories of people who persevere, refusing to give up in the struggle to meet their goals. Artists and scientists, for instance, may struggle for years without any apparent progress or reward before they finally succeed. However, it is important to recognize that perseverance does not always yield beneficial results.
>
> Adapted from Robert H. Lauer and Jeanette C. Lauer, *Watersheds*

Assignment: Is striving to achieve a goal always the best course of action, or should people give up if they are not making progress? 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.

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SECTION 2
Time — 25 minutes
18 Questions

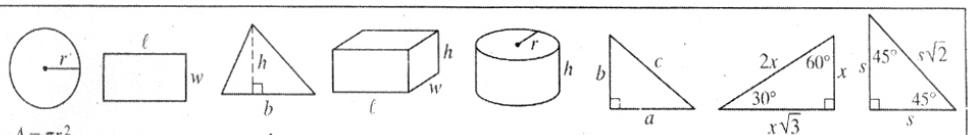
Turn to Section 2 (page 4) of your answer sheet to answer the questions in this section.

Directions: This section contains two types of questions. You have 25 minutes to complete both types. For questions 1-8, 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 scratch work.

Notes

1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. 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.
4. 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



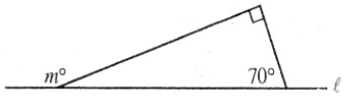
$A = \pi r^2$, $C = 2\pi r$ | $A = \ell w$ | $A = \frac{1}{2}bh$ | $V = \ell wh$ | $V = \pi r^2 h$ | $c^2 = a^2 + b^2$ | Special Right Triangles

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.

897, 890, 883, ...

1. In the sequence above, 897 is the first term and each term after the first term is 7 less than the preceding term. How much less is the 127th term than the 125th term?

(A) 2
(B) 6
(C) 10
(D) 14
(E) 18



2. In the figure above, what is the value of m ?

(A) 120
(B) 130
(C) 140
(D) 150
(E) 160

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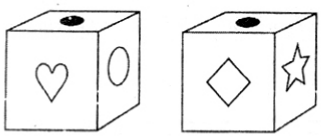
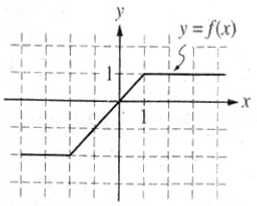
3. In Clayton County there is a \$30 base charge for a speeding ticket. For every mile per hour the driver travels above the speed limit, there is an additional \$5 charge. If the speed limit is 20 miles per hour and Paul was charged \$105 for a speeding ticket, how fast, in miles per hour, was Paul driving?

(A) 15
(B) 20
(C) 25
(D) 30
(E) 35



4. Two views of the same cube are shown above. The sixth face of the cube contains a △. What is on the face opposite the face with the ☆?

(A) ◇
(B) ♡
(C) ○
(D) △
(E) ●



x	$g(x)$
−2	0
−1	0
0	1
1	1
2	2

5. The figure above shows the graph of the function f, and the table shows selected values for the function g. For which of the following values of x does $f(x) = g(x)$?

(A) −2
(B) −1
(C) 0
(D) 1
(E) 2

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List X: 3, 4, 6, 9, 12, 15

6. Each number in list X above is multiplied by 3, and this new list of six numbers is called list Y. If a number is to be chosen at random from list X, what is the probability that the number chosen will also be in list Y ?

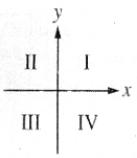
(A) $\frac{1}{6}$

(B) $\frac{1}{3}$

(C) $\frac{1}{2}$

(D) $\frac{2}{3}$

(E) $\frac{5}{6}$



7. Points on the line $2x + y = 1$ lie in which of the quadrants shown above?

(A) I and III only
(B) I and IV only
(C) I, II, and III
(D) I, II, and IV
(E) I, III, and IV

8. In a volleyball league with 4 teams, each team plays exactly 2 games with each of the other 3 teams in the league. What is the total number of games played in this league?

(A) 4
(B) 6
(C) 12
(D) 16
(E) 24

GO ON TO THE NEXT PAGE

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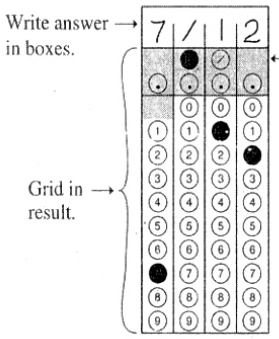
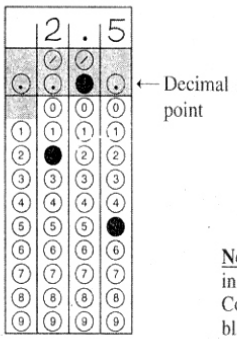
Directions: For Student-Produced Response questions 9-18, use the grids at the bottom of the answer sheet page on which you have answered questions 1-8.

Each of the remaining 10 questions requires you to solve the problem and enter your answer by marking the circles in the special grid, as shown in the examples below. You may use any available space for scratch work.

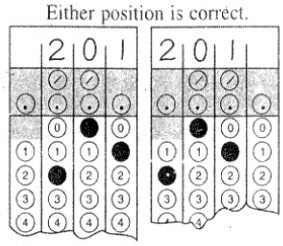
Answer: $\frac{7}{12}$



Answer: 2.5



Answer: 201
Either position is correct.

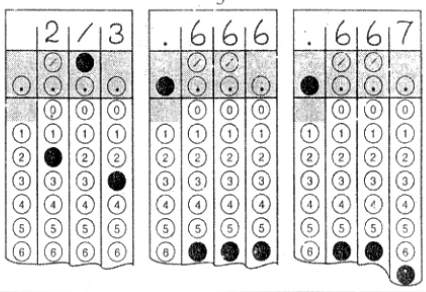


Note: You may start your answers in any column, space permitting. Columns not needed should be left blank.

- Mark no more than one circle in any column.
- Because the answer sheet will be machine-scored, **you will receive credit only if the circles are filled in correctly.**
- Although not required, it is suggested that you write your answer in the boxes at the top of the columns to help you fill in the circles accurately.
- Some problems may have more than one correct answer. In such cases, grid only one answer.
- No question has a negative answer.
- **Mixed numbers** such as $3\frac{1}{2}$ must be gridded as 3.5 or 7/2. (If is gridded, it will be interpreted as $\frac{31}{2}$, not $3\frac{1}{2}$.)

- **Decimal Answers:** If you obtain a decimal answer with more digits than the grid can accommodate, it may be either rounded or truncated, but it must fill the entire grid. For example, if you obtain an answer such as 0.6666..., you should record your result as .666 or .667. **A less accurate value such as .66 or .67 will be scored as incorrect.**

Acceptable ways to grid $\frac{2}{3}$ are:



9. If $7x - 2 = 6x + 8$, what is the value of $\frac{x}{4}$?

10. What is one possible three-digit positive integer that satisfies all of the following conditions?

- Each digit is a different factor of 40.
- The integer is odd.
- The sum of the digits is 11.

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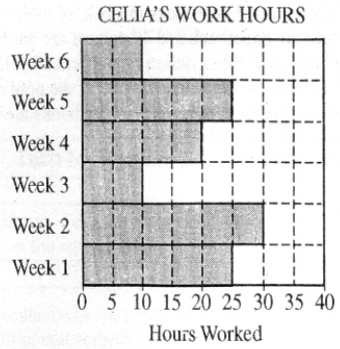
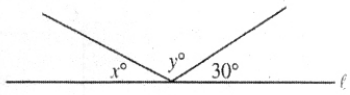


11. The graph above shows the number of hours Celia worked in each of 6 weeks. What was the average (arithmetic mean) number of hours she worked per week during the 6-week period?

12. Zelda, Barry, and Gil have a total of 78 DVDs. Zelda has 10 more DVDs than Barry has, and Gil has twice as many DVDs as Zelda has. How many DVDs does Barry have?



13. In the figure above, $y = 5x$. What is the value of y?

$$V(p) = 0.125p + 55{,}000$$

14. For the years 2000 to 2015, the function above expresses the expected number of registered voters, V, in a certain district in terms of the population, p, of the district. The district's population was 210,000 in 2000. If the population increases to 250,000 in 2015, what is the increase in the expected number of registered voters in the district from 2000 to 2015?

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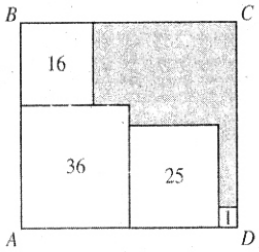
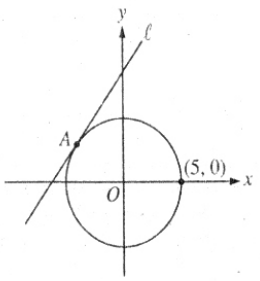


15. In the figure above, there are four nonoverlapping squares with areas 36, 25, 16, and 1, respectively, inside rectangle $ABCD$. What is the area of the shaded region?

16. If $(x-1)(x-r) < 0$ when $x = 5$ and $(x-1)(x-r) > 0$ when $x = 6$, what is one possible value for r?

17. A bookstore has 15,000 books in stock, of which 60 percent are paperback and 40 percent are hardcover. All the books are either fiction or nonfiction. If 4500 of the books are nonfiction and 2500 of the nonfiction books are paperback, how many of the books are both fiction and hardcover?



18. The coordinates (x, y) of each point on the circle above satisfy the equation $x^2 + y^2 = 25$. Line ℓ is tangent to the circle at point A. If the x-coordinate of point A is -4, what is the slope of ℓ?

STOP

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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 . . unaitractive
(D) extend . . satisfactory
(E) resolve . . acceptable Ⓐ Ⓑ Ⓒ Ⓓ ●

1. The works of Paraguayan artist Carlos Colombino are -------: they include sculpture, painting, printmaking, and architecture.

(A) distorted (B) whimsical (C) prominent
(D) instructive (E) varied

2. Some actors have complained that the director, rather than treating them as his -------, dominated them and expected them to be -------.

(A) protégés . . recalcitrant
(B) equals . . subservient
(C) rivals . . remorseful
(D) intimates . . overweening
(E) beneficiaries . . callous

3. The Prime Minister handled the crisis calmly and dispassionately, thereby enhancing his reputation for being -------.

(A) conciliatory (B) incorruptible (C) partisan
(D) imperturbable (E) cynical

4. Writing in a straightforward as opposed to ------- style, the author produced ------- argument that shed new light on a controversial topic.

(A) an intricate . . a trivial
(B) a stilted . . a nonsensical
(C) a convoluted . . a lucid
(D) a candid . . a poignant
(E) an austere . . a sweeping

5. The scientist ------- the value of an interdisciplinary approach to environmental studies, arguing such an approach was of ------- importance in promoting environmental literacy among students.

(A) invoked . . marginal
(B) touted . . paramount
(C) ignored . . unprecedented
(D) disparaged . . unparalleled
(E) extolled . . questionable

GO ON TO THE NEXT PAGE

3 3 3 Unauthorized copying or reuse of any part of this page is illegal. 3 3 3

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

Questions 6-7 are based on the following passage.

Your life may very well depend on a fish that few have heard of—the menhaden. No one actually eats menhaden because they are oily, foul, and packed with bones. But they can be ground up and used as a high-protein feed for chickens, pigs, and cattle. (Pop some barbecued wings in your mouth and part of what you're eating was once menhaden.) Furthermore, menhaden are filter feeders that help control the growth of algae devastating to coastal fisheries. Marine biologist Sara Gottlieb says, "Think of menhaden as the liver of a bay. Just as your body needs its liver to filter out toxins, ecosystems also need those natural filters."

Line 5 10

6. The primary purpose of the passage is to

(A) offer a hypothesis about the origins of a food staple
(B) describe the main habitat of a certain species of fish
(C) note the steady rise in the pollution of coastal waters
(D) convey the importance of a particular species of fish
(E) discuss the overharvesting of fish species in coastal waters

7. The quotation in lines 10-12 contains an example of which rhetorical device?

(A) Personification
(B) Understatement
(C) Wordplay
(D) Paradox
(E) Analogy

Questions 8-9 are based on the following passage.

For Black American artists working in the early twentieth century, the question of how best to gain support for their work was a compelling one. Some of them argued that they should incorporate their African heritage into their art production and choose themes representing the shared experiences of Black people. Others believed that Black artists should follow the prevailing styles of mainstream Europe and America in order to gain full acceptance in the art world. Modernist Lois Mailou Jones entered the debate in 1930, when she joined the faculty of Howard University and began to explore Africa in her paintings. Africa, both real and imagined, became a guide and an inspiration for Jones throughout her career.

Line 5 10

8. The author of the passage suggests that "Others" (line 6) believed it important to

(A) secure their reputations among established artists and critics
(B) honor their own personal artistic visions
(C) use African settings and themes in their works
(D) develop innovative stylistic techniques
(E) promote the works of fellow Black artists

9. The passage indicates that Jones "entered the debate" (line 9) by

(A) examining the impact of African artists on Black artists
(B) adapting classical European techniques to fit African themes
(C) inspiring other Black artists to join the modernist movement
(D) pursuing an artistic style in which African influences predominated
(E) undertaking a career change that posed a risk to her public reputation

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Questions 10-16 are based on the following passage.

The passage below is adapted from a book published in 1990.

The scientific method is the systematic pursuit of knowledge involving the identification of a problem, the collection of relevant data through observation and experimentation, and the formulation and testing of hypotheses that aim to solve the problem. Ever since the scientific method became a way of learning about nature, including ourselves, some people have hailed science as the only way to comprehend natural phenomena, while others have questioned whether it is an appropriate road to knowledge. As science and technology have grown, the questioning has deepened and expanded.

This is not to say that so-called scientific evidence is not a good way to vouchsafe truth. Scientists' testimonies are used to endorse everything from toothpaste to nuclear power; however, they are also used to challenge the very same things. And this is where it gets tricky: "Scientific" support can now be elicited on all sides of every question, so that the public is constantly forced to decide which scientists to believe.

Where then is the vaunted objectivity of science? People are realizing that they must either develop criteria on which to make these decisions (and to do so for each important issue) or decide to disbelieve all scientific explanations and look for other ways of knowing. Incidentally, these other ways are sometimes no less empirical than the scientific ones. The decision to disbelieve all scientific explanations is not to be sneered at. The volume, contradictoriness, and limited comprehensibility of much scientific information leave most people bewildered.

I am reminded of the comment Virginia Woolf attributes to the time-traveling character in her novel *Orlando*, who muses as she enters an elevator at Marshall and Snelgrove's department store in London in 1928: "The very fabric of life now . . . is magic. In the eighteenth century, we knew how everything was done; but here I rise through the air; I listen to voices in America; I see men flying—but how it's done, I can't ever begin to wonder. So my belief in magic returns."

Not only the general public is ill at ease. Uneasy questions are being asked by scientists themselves. As one noted scientist has argued: "The scientific community has led a particularly unexamined life for a surprisingly long time, and may have accepted its unusual and, until recently, unquestioned status a little too easily. Indeed, in the last 25 years, in an effort to raise financial support at a rate nearly triple that of the rest of society, the scientific community may have promised too much too soon. Certainly it underestimated the demand for accountability." And this scientist goes on: "In all humility, it must . . . be admitted that it is impossible to categorically deny that we may have reached a point where we must abandon the faith that [in all cases] knowledge is better than ignorance. We simply lack the ability to make accurate predictions."

10. In lines 7-10 ("some people . . . knowledge"), the author does which of the following?

(A) Rationalizes a behavior.
(B) Advocates a course of action.
(C) Issues a challenge.
(D) Presents opposing viewpoints.
(E) Voices doubt about an approach.

11. The examples in lines 14-15 ("toothpaste . . . power") are given to

(A) criticize the widespread acceptance of certain products
(B) mock the gullibility of the public in scientific matters
(C) describe the daily routine of a group of professionals
(D) enumerate a number of mundane activities in which scientists are involved
(E) convey the range of issues to which science is considered relevant

12. Lines 26-29 ("The decision . . . bewildered") serve primarily to

(A) correct the inherent limitations of scientific thought
(B) decry the lack of scientific training among the general public
(C) suggest the origins of a branch of science
(D) defend a position that might be challenged
(E) introduce some goals that scientific education should achieve

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13. The quotation from the Virginia Woolf novel in lines 33-38 is used to

(A) examine the public's long-standing fascination with magic
(B) describe specific differences between eighteenth- and twentieth-century science
(C) express amusement over an unsophisticated belief
(D) argue that science and literature contain several parallels
(E) illustrate a state of mind that is mystified by scientific achievements

14. The quotation in lines 41-48 expresses in part a belief that

(A) scientists have not made progress in addressing the problems that affect humanity
(B) scientific progress has been hindered by a lack of financial resources
(C) the scientific profession has been granted exceptional standing in society
(D) the science community has ignored suggestions to reform its discipline
(E) scientists have capably defended themselves against the criticisms leveled against science

15. In line 53, "simply" most nearly means

(A) foolishly
(B) directly
(C) easily
(D) basically
(E) innocently

16. The primary purpose of the passage as a whole is to

(A) explore alternative ways of understanding natural phenomena
(B) discuss the lack of humility that many scientists demonstrate
(C) urge the public to become more familiar with the details of science
(D) challenge the findings of a particular group of scientists
(E) question the scope and value of scientific understanding

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Questions 17-24 are based on the following passage.

This passage from a 1992 book discusses the Bajau people of Southeast Asia, who are often referred to as sea nomads.

Sea nomads have always been serious navigators. For years, the Bajau have sailed the waters by using the stars, birds, sea conditions, and smells to orient themselves. Recent research concludes that humans, like many other species, have a built-in sense of direction, no matter how atrophied it may have become from disuse. Apart from navigation, though, a sea nomad's knowledge of the ocean is scientific in its detail, yet the nomad's gaze is very far from being a scientist's gaze. For one thing, it tends to be holistic, whereas the impression given by today's scientists is one of extreme specialization.

The question finally arises: What order of knowledge do we stand to lose if and when the Bajau finally abandon their way of life, and does it matter? Perhaps one can say with more than mere intuition that certain skills do atrophy through not being used, that an increasing reliance on electronics to mediate our apprehension of the world does lead to the loss of certain sensitivities, and that to lose any sensitivity or awareness is limiting and unwise. Extreme examples are sometimes advanced in favor of retaining "old methods." In the case of navigation, it might be said that with increasing reliance on satellite-based positioning and guidance systems, the old skills of stellar navigation may no longer be taught even as a "manual backup" and will in time be lost altogether. What happens then if something puts all electronic navigational systems out of commission all at once?

Of course, this is not quite the point. The point is not only what will happen if and when stellar navigation becomes a lost art, but who apart from astronomers will remain attentive to the heavens? Who apart from scientists will remain attentive to the sea? Even when it happens before our eyes, it is hard enough to accept that species become extinct. But the idea of bodies of *knowledge* becoming extinct seems quite as shocking, and it is difficult to see how it can be avoided when they are so inseparably a part of a rare and specialized way of life—a way of life that is now changing.

If in 50 years' time most Bajau are land-bound stockbrokers, what will the sea be to them except somewhere for family outings and expensive water sports? Of what use to future generations is their present intricate understanding of the ocean? If there is a scientific rather than a sentimental answer, it might be one analogous to recognizing the paramount importance of maintaining the diversity of species. The more the world becomes politically, economically, and culturally centralized, the more homogenized its ways of living, the more the dangers of sameness become apparent.

To take a notorious example, the European trade regulations restricting the varieties of fruit and vegetable seeds permitted for sale within the European Community have for years been viewed as potentially disastrous by scientists. A real threat is concealed in the preferment of a handful of crop varieties chosen only according to marketplace (mainly visual) criteria. When in the nineteenth century the Irish potato crop was lost, creating mass famine and mass emigration to the New World, the potatoes were almost entirely of a single strain, uniformly susceptible to blight. No amount of genetic juggling or selective pesticides will be as effective as growing the widest possible variety of fruits and vegetables, keeping unfashionable strains alive even if the immediate benefits are not obvious.

A consumer-based cultural uniformity is still some way off but is already advanced enough for certain grim futures to be imagined. Utterly various ways of experiencing the planet still do survive, though tenuously and in scattered fashion. Bajau people look up, and the Sun crossing the sky tells them any number of things, including their place, their time, and how the sea creatures on which their living depends will be behaving. In another world, spanned with satellites and a global money market, the Sun is just a noun, a hot and dazzling object rising with the Japanese stock market in Tokyo and setting with the New York Stock Exchange.

17. The opening paragraph of the passage serves primarily to

(A) downplay the differences between traditional and modern ways of sea navigation
(B) define the meaning of scientific specialization
(C) offer a firsthand account of the sea nomad's life
(D) characterize the distinctiveness of the Bajau way of life
(E) lament the sea nomads' demise

18. It can be inferred from the sentence in lines 9-11 ("For . . . extreme specialization") that the sea nomads' knowledge of the ocean is most similar to which of the following?

(A) Pilots who use flight simulation to master the technical complexity of modern aircraft
(B) Zoologists who observe how animals function when placed in unfamiliar habitats
(C) Ecologists who view humans and the environment as part of a single system
(D) Environmentalists who monitor the activities of wildlife by employing tracking devices
(E) Geologists who can accurately predict when a volcanic eruption will occur

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19. The question in lines 12-14 functions primarily to

(A) set the tone for the subsequent discussion about diversity
(B) challenge the value of the contributions of the Bajau people
(C) raise the issue of the importance of scientific knowledge to society
(D) establish the author's fundamental disagreement with scientists
(E) signify the author's shift in focus from the past to the future

20. The author's use of the words "specialization" (line 11) and "specialized" (line 37) implies a distinction between

(A) a view of science as overly complex and a way of life that is uncomplicated
(B) a belief that scientific advancements are progressive and a way of life that is archaic
(C) an approval of the specificity of science and condemnation of a restrictive way of life
(D) a dismissal of scientific advancements as commonplace and an ambivalence about a specific way of life
(E) disapproval of a too-scientific approach and approval of a particular way of life

21. The statement in lines 43-45 ("If . . . species") serves primarily to

(A) question the significance of the evidence presented
(B) explain why the transition of the Bajau from sea to land would be so significant
(C) illustrate why the trend toward a homogeneous Bajau culture could actually be promising
(D) show how technological advances can inhibit the development of human sensitivities
(E) describe one unique relationship between the Bajau and the ocean

22. The comment about "genetic juggling" (line 59) makes which point?

(A) Technology can create problems but can also solve them.
(B) Modern technology cannot provide an adequate alternative to natural diversity.
(C) Contemporary society is governed by superficial concerns.
(D) Human beings are increasingly intent on manipulating their environment.
(E) The marketplace should not dictate the course of scientific research.

23. In lines 67-74, the author presents two images of the Sun primarily to

(A) contrast a holistic outlook with a scientific perspective
(B) convey the unique relationship between the heavens and the sea
(C) juxtapose two disparate approaches to life
(D) applaud two impressive bodies of knowledge
(E) emphasize the common bond between two cultures

24. The primary underlying concern of the passage is

(A) society's distrust of outsiders
(B) society's preoccupation with material wealth
(C) the effects of homogeneity
(D) the appeal of traditional cultures
(E) the destructive power of nature

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 4
Time — 25 minutes
20 Questions

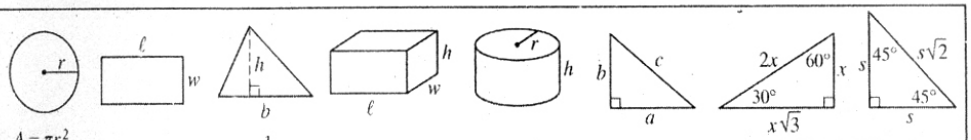
Turn to Section 4 (page 5) of your answer sheet to answer the questions in this section.

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 scratch work.

Notes

1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. 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.
4. 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



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

$A = \ell w$

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

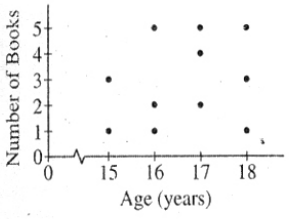
$V = \ell wh$

$V = \pi r^2 h$

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

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. The scatterplot above shows the number of books of concert tickets sold by 11 people ranging in age from 15 to 18. What is the total number of books of tickets that were sold by the 11 people?

(A) 11
(B) 24
(C) 32
(D) 40
(E) 48

2. If 7.36 is rounded to the nearest tenth and the rounded number is multiplied by 3, what is the result?

(A) 21.0
(B) 21.9
(C) 22.0
(D) 22.1
(E) 22.2

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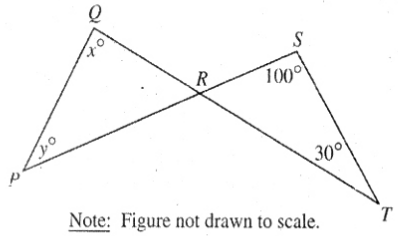


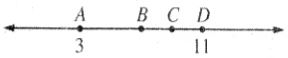
Note: Figure not drawn to scale.

3. In the figure above, $\overline{QT}$ and $\overline{PS}$ intersect at R. If $x = 100$, what is the value of y?

(A) 25
(B) 30
(C) 35
(D) 40
(E) 50

4. Yesterday, Jamie painted boxes at an average rate of 10 minutes per box. Isaac painted boxes at an average rate of 15 minutes per box. If they both painted boxes at these respective rates for one hour, what is the total number of boxes they painted?

(A) 6
(B) 8
(C) 10
(D) 11
(E) 12



5. On the number line above, point C is the midpoint of $\overline{BD}$ and point B is the midpoint of $\overline{AD}$. What is the coordinate of point C?

(A) 5
(B) 6
(C) 7
(D) 8
(E) 9

6. If x is 3 less than the product of s and t, which of the following is an expression for x in terms of s and t?

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

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7. In a survey, 75 television viewers offered their opinions about program A and program B. Of those viewers, 18 liked neither program A nor program B, while 25 liked both program A and program B. If 22 viewers liked program A only, how many viewers liked program B only?

(A) 3
(B) 10
(C) 15
(D) 32
(E) 35

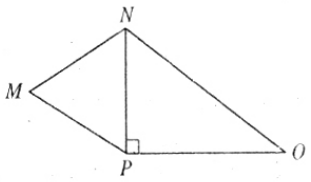
8. If $x = y - 1$, what is the value of $2x - 2y$?

(A) -2
(B) -1
(C) 1
(D) 2
(E) 4

9. If k is a positive even integer and n is a negative odd integer, which of the following could be equal to $k + n$?

I. 0
II. 1
III. 2

(A) I only
(B) II only
(C) III only
(D) I and III only
(E) I, II, and III



Note: Figure not drawn to scale.

10. In the figure above, $\triangle MNP$ is equilateral. If $MN = 4$ and $PO = 4\sqrt{3}$, what is the measure of $\angle NOP$?

(A) 20°
(B) 30°
(C) 40°
(D) 45°
(E) 60°

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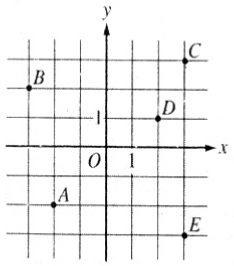
11. If $\frac{2}{a} = 100$, what is the value of $a + \frac{1}{a}$?

(A) 50.02
(B) 50.2
(C) 100.01
(D) 100.1
(E) 200.005



12. In the xy-plane above, which of the following points has coordinates (x, y) such that $x \leq |x + y| \leq y$?

(A) A
(B) B
(C) C
(D) D
(E) E

13. The total cost of 20 identical stamps is x dollars. At this rate, what is the total cost, in dollars, of 50 of these stamps, in terms of x ?

(A) $\frac{2}{5}x$
(B) $\frac{2}{3}x$
(C) $\frac{3}{2}x$
(D) $\frac{5}{2}x$
(E) $50x$

14. A rectangle is to be altered by increasing its length by 10 percent and decreasing its width by 10 percent. What effect will this have on the area of the rectangle?

(A) The area will increase by 10%.
(B) The area will increase by 1%.
(C) The area will remain unchanged.
(D) The area will decrease by 1%.
(E) The area will decrease by 10%.

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15. If m and t are positive integers and $2^{mt} = 64$, which of the following must be true?

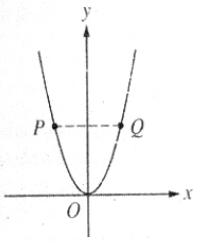
(A) $m = t - 4$

(B) $m = \frac{4}{t}$

(C) $m = 6 - t$

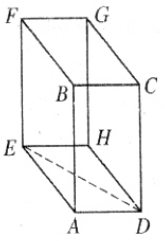
(D) $m = 6t$

(E) $m = \frac{6}{t}$



16. In the figure above, the parabola is the graph of $y = x^2$. If the y-coordinate of P and the y-coordinate of Q are each 6, what is the length of $\overline{PQ}$?

(A) 12
(B) 6
(C) $2\sqrt{6}$
(D) $2\sqrt{3}$
(E) $\sqrt{6}$



17. The volume of the rectangular solid above is 576. If $AD = 3x$, $DE = 5x$, and $GH = 6x$, what is the value of x?

(A) 2
(B) 3
(C) 5
(D) 8
(E) 9

18. The average (arithmetic mean) age of a certain group of 25 business managers is 40 years. If 5 additional managers are included in the group, then the average age of the 30 managers is 43 years. What is the average age of the 5 additional managers?

(A) 50
(B) 52
(C) 55
(D) 58
(E) 60

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19. If $x > 2^{1,000}$, which of the following is greatest?

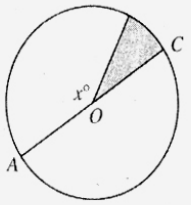
(A) $(x+2)^2 - 2$

(B) $(x-2)^2 + 2$

(C) $\left(\frac{x}{2}\right)^2$

(D) $\frac{(2x)^2}{2}$

(E) $\frac{x^2+2}{2}$



Note: Figure not drawn to scale.

20. The figure above shows a circle with center O and diameter $\overline{AC}$. If $AC = 6$ and the area of the shaded region is π, then $x =$

(A) 10
(B) 40
(C) 140
(D) 150
(E) 170

STOP

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Do not turn to any other section in the test.

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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 <u>and she was sixty-five years old then</u>.

(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

Ⓐ ● Ⓒ Ⓓ Ⓔ

1. Research has shown that <u>children, born with the ability to learn</u> any human language, even several languages at the same time.

   (A) children, born with the ability to learn
   (B) children, when born with the ability for learning
   (C) children, they are born with the ability to learn
   (D) children born with the ability to be learning
   (E) children are born with the ability to learn

2. The judge ruled that the magazine must not publish or in any way <u>profiting</u> from the illegally obtained photographs.

   (A) profiting
   (B) should they profit
   (C) to profit
   (D) profited
   (E) profit

3. With the popularity of travel and tourism reaching unprecedented heights, environmental damage to previously unspoiled sites and remote wilderness areas <u>is becoming pervasive, irreversible, and</u> costly.

   (A) is becoming pervasive, irreversible, and
   (B) is becoming pervasive, irreversible, and it can be
   (C) becomes pervasive, irreversible; it is also
   (D) becoming pervasive, irreversible, and it is
   (E) when it becomes pervasive, irreversible, and

4. <u>Because the composer valued informality in all aspects of life is the reason why</u> he chose to wear blue jeans to concerts.

   (A) Because the composer valued informality in all aspects of life is the reason why
   (B) Because the composer valued informality in all aspects of life,
   (C) The composer valued informality in all aspects of life and is the reason why
   (D) A result of the composer valuing informality in all aspects of life was
   (E) The fact that the composer valued informality in all aspects of life, which explains why

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5. Recently, fast-food restaurants have responded to criticism that their food offerings are unhealthy by adding to their menus items that are lower in fat and calories and smaller in portion size.

(A) by adding
(B) and is adding
(C) to add
(D) and adding
(E) thereby adding

6. The second-year students at this college have evolved into insightful, critical thinkers from an inexperienced and uncertain teenager just a year before.

(A) from an inexperienced and uncertain teenager just a year before
(B) from the inexperienced and uncertain teenagers they were just a year ago
(C) even though just a year before they were an inexperienced and uncertain teenager
(D) in just a year from an inexperienced and uncertain teenager
(E) when in just a year they were inexperienced and uncertain teenagers

7. At the age of seventeen, Avicenna (c. A.D. 980–1037) being a practicing physician, was when he proved his remarkable competence by curing the seriously ill King of Bukhara.

(A) At the age of seventeen, Avicenna (c. A.D. 980–1037) being a practicing physician, was when he proved
(B) At the age of seventeen, Avicenna (c. A.D. 980–1037) was a practicing physician, he proved
(C) A practicing physician at the age of seventeen, Avicenna (c. A.D. 980–1037) proved
(D) Practicing as a physician at the age of seventeen, Avicenna (c. A.D. 980–1037) has proven
(E) A practicing physician at the age of seventeen named Avicenna (c. A.D. 980–1037), proved

8. The fabled city of Timbuktu was founded by nomads, they were seeking shelter from the Sahara desert on the cool banks of the Niger River.

(A) nomads, they were seeking
(B) nomads, they sought
(C) nomads seeking
(D) nomads; seeking
(E) nomads which sought

9. Commuters in the 1990s encountered more traffic delays than the 1970s and 1980s.

(A) than
(B) than did
(C) than the traffic problems of
(D) than with the commuters in
(E) than commuters did in

10. Across the southern surface of the Moon's far side sprawls an asteroid-impact crater, 1,600 miles wide and 8 miles deep, called the Aitken Basin.

(A) side sprawls an asteroid-impact crater,
(B) side there sprawls an asteroid-impact crater, it is
(C) side, a sprawling asteroid-impact crater,
(D) side, an asteroid-impact crater that sprawls
(E) side, sprawl an asteroid-impact crater,

11. Fabric was very expensive in the United States before the Industrial Revolution, this is why scraps were saved and recycled into such items as patchwork quilts and doll clothes.

(A) Revolution, this is why
(B) Revolution, this explains why
(C) Revolution, and so
(D) Revolution and so that
(E) Revolution; resulting in

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

Ⓐ ● Ⓒ Ⓓ Ⓔ

12. The Arctic ringed seal employs its sharp-clawed flippers not only to carve (A) breathing holes in the thick sea ice and also (B) to build its lair in snowdrifts over (C) such holes. (D) No error (E)

13. Centuries ago, (A) the Greek physician Hippocrates advocated collecting (B) data from (C) patients in order to be drawing (D) conclusions and diagnose diseases. No error (E)

14. The computer company has increased (A) sales for three consecutive years, (B) both by lowering prices on its (C) personal computers and it added (D) new product lines. No error (E)

15. The historic Woodacre building, which house (A) several university departments, was demolished to make (B) room for (C) a parking lot, dismaying alumni who had supported (D) the university for decades. No error (E)

16. Something about (A) the project must have (B) energized the bureaucrats; only six months after (C) plans are submitted, (D) the playground was complete. No error (E)

17. Sui Sin Far and Edith Eaton are both a name (A) used by an early twentieth-century writer whose (B) psychological realism continues to bring (C) her characters to life (D) for today's readers. No error (E)

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18. Professor Corey, a man genuinely interested (A) in others' ideas, told the students in his government class that they (B) were free to voice (C) all of their opinions, no matter how controversial it was. (D) No error (E)

19. Some experts say that of all (A) the musical forms that constituted African music in the second half of the (B) twentieth century, Congolese rumba and its rambunctious offspring, soukous, were (C) the more (D) influential. No error (E)

20. In 1991 Burmese military officials arrested dissident political leader Aung San Suu Kyi, thereby (A) preventing (B) her from leaving (C) Burma for accepting (D) the Nobel Peace Prize in Oslo. No error (E)

21. The United States Supreme Court is the final interpreter of (A) the Constitution, and they have (B) the power to (C) declare a state law unconstitutional. (D) No error (E)

22. Absent from the curtain call, to our disappointment, was (A) the director and the producer, both of whom (B) had done (C) so much to bring about (D) this triumphant opening night. No error (E)

23. The three sections of my neighbor's newly planted (A) garden, each totally different (B) in design and composition, harmonizes (C) with one another (D) in color and texture. No error (E)

24. The restoration of the once bustling (A) neighborhood, an area recently marred (B) by litter and graffiti, is one of the high praised (C) efforts of (D) the mayor's administration. No error (E)

25. Though far (A) less innovative as a composer (B) of vocal and instrumental music, Georg Philipp Telemann was the most prolific of (C) either Johann Sebastian Bach or (D) George Frideric Handel. No error (E)

GO ON TO THE NEXT PAGE

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26. For (A) more than a century, wooden ships called "skipjacks" were regularly used (B) to harvest (C) oysters in Chesapeake Bay, but only a few such vessels (D) remain in service today. No error (E)

27. Built from 1609 to 1617 to rival (A) the Hagia Sophia, Istanbul's Sultanahmet Mosque was celebrated (B) not so much for its architecture but because of (C) the exquisite blue tiles that adorned its (D) interior. No error (E)

28. The codfish inhabits the shallow waters of the ocean; they are (A) especially plentiful in such areas as (B) the North American continental shelf, where (C) the depth is rarely greater than (D) 200 or 300 feet. No error (E)

29. Representatives of two independent groups have been asked (A) to review recent studies comparing (B) the monthly (C) costs of using cell phones with conventional phones (D). 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 refer to the following passage.

(1) Most of my classmates have no idea what they want to do when they graduate. **(2)** They are similar to me. **(3)** Many different things are interesting to them. **(4)** My classmates are not sure how to decide which one is most important. **(5)** Yet, how any of these interests can turn into a career is not known.

(6) This problem worried me a great deal until recently, when I read an article about Mae Jemison, who was the first African American woman to become an astronaut. **(7)** Jemison is another person who seems to have had so many interests that she hardly knew which to pursue. **(8)** In college she majored in chemical engineering and African American studies but then changed her mind and went to medical school. **(9)** After practicing medicine in the United States for a few years, for example, she joined the Peace Corps and went to West Africa. **(10)** When she returned, she applied to the National Aeronautics and Space Administration (NASA) and became a mission specialist, conducting scientific experiments aboard Spacelab and on the shuttle Endeavour. **(11)** After she had retired from NASA, Jemison taught college, founded an international science camp for high school students, and once went to be on *Star Trek: The Next Generation*—among many other things.

(12) I think this is amazing. **(13)** It shows me that I don't have to give up activities I love—sports or music, for instance—or settle for a job that doesn't really interest me. **(14)** I can choose a career that includes activities that interest me, and I can even change careers if I find something that interests me more.

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30. In context, which of the following is the best way to revise and combine the underlined portion of sentences 2, 3, and 4 (reproduced below) ?

<u>They are similar to me. Many different things are interesting to them. My classmates are not</u> sure how to decide which one is most important.

(A) Like me, they are interested in many different things, but they are not
(B) Like me in their interests in many different things, but not really
(C) My classmates, similar to me, find many different things interesting, but not
(D) They, similarly to me, are interested in many different things, but I am not
(E) Similarly, they are like me; having many different things that interest them but not being

31. In context, which is the most effective version of sentence 5 (reproduced below) ?

Yet, how any of these interests can turn into a career is not known.

(A) (As it is now)
(B) Moreover, they do not know how to go about turning any of their interests into a career.
(C) Still, these students did not know how to turn their interests into careers.
(D) So we do not know how a career could result from any of their interests.
(E) Clearly, I do not know how any of my interests can turn into a career.

32. In context, which is the best replacement for the underlined words in sentence 9 (reproduced below) ?

After practicing medicine in the United States for a few years, <u>for example</u>, she joined the Peace Corps and went to West Africa.

(A) accordingly
(B) consequently
(C) therefore
(D) however
(E) by the way

33. What is the best version of the underlined part of sentence 11 (reproduced below) ?

After she had retired from NASA, Jemison taught college, founded an international science camp for high school students, and once <u>went to be</u> on Star Trek: The Next Generation*—among many other things.*

(A) appearing
(B) makes an appearance
(C) appeared as a character
(D) to be a character
(E) they asked her to be

34. The second paragraph (sentences 6-11) would be most strengthened by adding

(A) information about what led Jemison to make any of her career choices
(B) the names of the college and medical school Jemison graduated from
(C) examples of the scientific experiments Jemison conducted
(D) details about Jemison's medical career
(E) an explanation of the term "mission specialist"

35. In context, which of the following versions of sentence 12 (reproduced below) is most effective?

I think this is amazing.

(A) I believe Jemison is an extraordinarily gifted person.
(B) Jemison showed great courage in pursuing her dream.
(C) It must be very exciting to be an astronaut.
(D) I was very surprised to read about Jemison's ideas.
(E) I find Jemison's story very reassuring.

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.

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SECTION 7

Time — 25 minutes
23 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 Ⓐ Ⓑ Ⓒ Ⓓ ●

1. In retrospect, the presidency of Dwight Eisenhower is perceived as ------- period because it was relatively free of domestic turmoil.

   (A) a tranquil (B) an intractable (C) a dire
   (D) a convergent (E) a vanquished

2. The two astronomers who simultaneously discovered Comet Hale-Bopp were -------: individuals pursuing astronomy as an interest, not as a profession.

   (A) researchers (B) amateurs (C) skeptics
   (D) officials (E) pioneers

3. The dictator ------- democracy as the ------- of ordinary citizens in government affairs.

   (A) scorned . . duty
   (B) praised . . absence
   (C) lauded . . bungling
   (D) endorsed . . tyranny
   (E) derided . . meddling

4. The two friends occasionally indulged in -------, as they both enjoyed a bout of good-natured teasing.

   (A) banter (B) libel (C) bombast
   (D) controversy (E) blather

5. Never an -------, but tending instead to see both sides of an issue, the senator was considered ------- by those who did not know her well.

   (A) absolutist . . indecisive
   (B) authoritarian . . insensitive
   (C) elitist . . arrogant
   (D) ideologue . . adamant
   (E) underachiever . . moderate

6. The passengers experienced an intimacy not uncommon among vacationers spending days together, an intimacy more often due to ------- than to any community of taste.

   (A) proximity (B) compatibility (C) affluence
   (D) finesse (E) recalcitrance

7. Chairperson and CEO Andrea Jung has revitalized her company, considered ------- in recent years, to one whose products now attract millions of consumers worldwide.

   (A) avant-garde (B) moribund (C) auspicious
   (D) spurious (E) munificent

8. Jessica was ------- by Jon's angry outburst: she literally did not know what to say, think, or do.

   (A) disenchanted (B) peeved (C) assuaged
   (D) beguiled (E) nonplussed

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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 9-11 are based on the following passages.

Passage 1

Caves have always haunted the imagination. The ancient Greeks shuddered at tales of Cerberus, the three-headed dog guarding the entrance to Hades, and countless legends and Hollywood fantasies include a spine-tingling staple: unknown creatures lurking in the next claustrophobic corridor, hungry and waiting for visitors. Now it turns out that bizarre, voracious denizens of the underworld are not wholly imaginary. Biologists slithering into ever deeper, tighter recesses are coming face-to-face with a fast-growing list of cave-dwelling spiders, centipedes, leeches, mites, scorpions, beetles, fish, snails, worms, and salamanders, along with thick beds of bacteria and fungi that sometimes make a living off the very rocks.

Passage 2

Five hundred feet below the bright-green rain forest, my fellow cave diver slips into the dark-green waters of a flooded cave passage called Tunkul Sump. Loaded with lights and two scuba tanks, he unreels a thin white nylon cord, his lifeline back from the unexplored passage. I sit near the sump and wait. It's April 30, 1999, my sixth expedition to the Chiquibul cave system in Belize and Guatemala. On each trip I feel I'm opening books in an underground library that has preserved records of dramatic climate change over time, of the lives of the ancient Maya who once used these caves, and of numerous animal species, living and extinct.

9. Both Passage 1 and Passage 2 indicate that caves are home to

(A) fossilized remains
(B) sedimentary rocks
(C) mythological creatures
(D) ancient human artifacts
(E) multiple animal species

10. The authors of both passages would most likely agree that caves

(A) were left unexplored due to the dangers involved
(B) are threatened by excessive exploration
(C) continue to yield new discoveries
(D) provide information about ancient civilizations
(E) fuel people's fears about the underworld

11. The last sentence of Passage 2 serves primarily to

(A) show the extent to which the climate of the area has changed
(B) point out that the cave was once home to species that are now extinct
(C) indicate the danger associated with an expedition of this kind
(D) convey the idea that the cave serves as a historical chronicle
(E) suggest that underwater cave exploration is more productive than scholarly research

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Questions 12-23 are based on the following passage.

The passage below was adapted from a novel published in 1987.

I am a painter. I paint portraits and townscapes—views of the inner city, of shabby streets, small, dusty parks, crumbling tenements. That is my art, my reason for living. Unhappily, it is not productive in the crude sense. In spite of kindly reviews of my occasional exhibitions and the loyal response of old friends who attend the private views and buy the smaller paintings, my work only brings in a pittance. The trade that I live by, that pays the bills and the mortgage, that gives my mother the necessary allowance to keep her in reasonable comfort in her small house, is that of a copyist.

I am (I must make this clear) an honest craftsman; not a cheat, not a forger. I am no Tom Keating,* aging a picture with a spoonful of instant coffee, spraying on fly specks with a mixture of asphalt and turpentine, pretending to have come upon an unknown Old Master in a junk shop or attic. I paint copies of famous paintings, sometimes for private persons or institutions, but mostly for the directors of companies who want an impressive decoration to hang in their boardrooms. Deception of an innocent kind is their intention; asked if the picture is genuine, few of them, I imagine, would lie. Nor would they be wise to. Whether they know it or not (and in some cases I am sure that they do know, collaborating with me in a further, minor deception out of pleasure and a shared sense of humor), my copies are never exact.

That is where vanity comes in. One wants to leave one's mark on the world. Like many another craftsman, like an apprentice stonecutter carving a gargoyle on a cathedral, I want to make my individual contribution to the grand design. I copy the painting with all the skill at my disposal, all the tricks; squaring up, measuring with calipers, using photographs, a projector, a light box for transparencies to get as near as I can to the true color. I try to match the pigments used by the artist, grinding my own Naples yellow, or buying it in a tube from Budapest where it is still legal to sell it ready made with lead and antimony. But instead of adding my signature, I change some insignificant feature. I alter the expression of a man in a crowd, add a tiny animal face in a dim corner, a mouse or a weasel, replace the diamond on a woman's hand with a ruby, paint a watch on a wrist in an eighteenth-century portrait. How many casual observers would notice? Or care if they did? Most people chortle to see experts confounded.

All art, of course, is full of deception. Nature, too, and human behavior, but more of that later. Remember the story of Zeuxis? No? Then I'll tell you. (Bear with me. The tale will develop, I hope, when I can find my way into it, but I am only a painter, unused to the art of narrative flow.) This Zeuxis lived in Athens in the fourth century B.C. He painted a picture of grapes with such skill that sparrows flew in and tried to peck at the fruit. Amused, Zeuxis invited another painter to witness a repeat performance. A rival, whose name was Parrhasius. He affected to be unimpressed. To cheat sparrows was nothing extraordinary. "Bird brained" was his buzzword. The birth of a cliché?

Parrhasius went home and brooded. His turn to ask his friend Zeuxis to inspect a painting. It was concealed behind a curtain. Zeuxis tried to unveil it and failed; the draperies had been painted. Zeuxis, who was either a fool, or a very nice man, or simply somewhat shortsighted, was generous with praise. "I was only able to deceive a few sparrows, but you have deceived me, a man and an artist."

This hoary old legend has its quirky, private significance for me. Ever since I first heard it, at school, it made me want to be an artist good enough to fool the experts.

*Tom Keating (1918-1984) was an art restorer and famous art forger who claimed to have forged over 2,000 paintings by over 100 different artists.

12. In line 4, "Unhappily" most nearly means

(A) Inappropriately
(B) Mournfully
(C) Unfortunately
(D) Awkwardly
(E) Unexpectedly

13. The narrator portrays the "friends" (line 6) as generally being

(A) imaginative
(B) artistic
(C) amusing
(D) reflective
(E) supportive

14. The narrator's attitude toward Tom Keating (line 13) is primarily one of

(A) sympathy
(B) fascination
(C) regret
(D) disdain
(E) exasperation

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15. In line 16, the narrator uses the phrase "an unknown Old Master" to refer to

(A) a forgotten teacher who once wielded great influence
(B) a formerly prominent artist who has now become obscure
(C) any painting found in an out-of-the-way place
(D) an artwork so damaged that it has lost its aesthetic appeal
(E) a painting by a famous artist that had previously been unrecognized

16. The attitude of those people "collaborating" (line 24) in the "deception" (line 25) is one of

(A) feigned innocence
(B) ironic detachment
(C) wry amusement
(D) naked ambition
(E) unmitigated greed

17. As described in lines 31-37 ("I copy . . . antimony"), the narrator's approach to copying is best characterized as

(A) painstaking
(B) grudging
(C) innovative
(D) simplistic
(E) slipshod

18. The "watch" (line 42) is best characterized as

(A) an allegory
(B) an anachronism
(C) a metaphor
(D) a symbol
(E) a conundrum

19. The statement in line 45 ("All art . . . deception") signals a shift from

(A) a discussion about a vocation to a discussion about private life
(B) a description of a person to a description of a community
(C) an analysis of a deception to a rumination on that deception's consequences
(D) an account of a particular individual's actions to an explanatory anecdote
(E) a historical consideration of a trade to a mythical tale of that trade's origins

20. In line 55, "cheat" most nearly means

(A) mislead
(B) swindle
(C) deprive
(D) elude
(E) victimize

21. In lines 54-57 ("He affected . . . brooded"), the narrator implies that Parrhasius was

(A) annoyed at having been summoned to judge Zeuxis' work
(B) regretful that he had not worked harder to perfect his own artistic skills
(C) proud that a fellow artist had created such a realistic work
(D) secretly jealous of Zeuxis' accomplishment
(E) more knowledgeable about the behavior of birds than Zeuxis was

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22. In lines 60-61 ("Zeuxis . . . shortsighted"), the narrator offers

(A) unusual examples of a particular technique
(B) alternative explanations for a certain action
(C) humorous excuses for a grave situation
(D) cynical reasons for a heroic gesture
(E) unfair dismissals of a scholarly tradition

23. The narrator implies that the "legend" (line 64) served to

(A) inspire the narrator with a lifetime goal
(B) solidify the narrator's ethical beliefs as an artist
(C) suggest to the narrator that the life of an artist would ultimately prove to be profitable
(D) discourage the narrator from attempting to become a prominent artist
(E) help teach the narrator the technical skill needed to become a copyist

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.

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SECTION 8
Time — 20 minutes
16 Questions

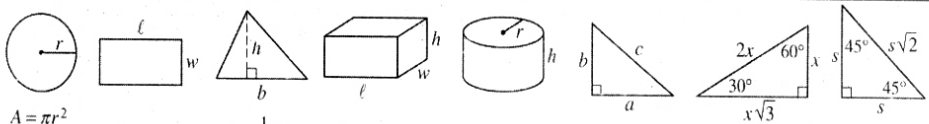
Turn to Section 8 (page 7) of your answer sheet to answer the questions in this section.

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 scratch work.

Notes

1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. 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.
4. 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 $ax = 10$ and a is a negative integer, which of the following could be the value of x?

(A) -5
(B) -4
(C) 0
(D) 1
(E) 2

2. At a music store, the CDs Paul bought were \$12 each, and the CDs Kate bought were \$15 each. If together they paid a total of \$78 for 6 CDs, how many CDs did Kate buy?

(A) Two
(B) Three
(C) Four
(D) Five
(E) Six

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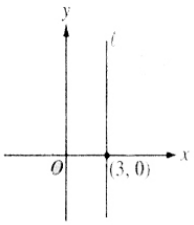
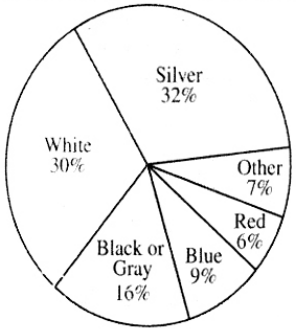


3. In the figure above, line ℓ is perpendicular to the x-axis and is 3 units from the y-axis. Which of the following points is on line ℓ?

(A) (1, 3)
(B) (3, 5)
(C) (0, 3)
(D) (2, 1)
(E) (1, 2)

COLORS OF LUXURY CARS, 2002



4. The circle graph above shows the colors for new luxury cars sold in 2002. If 97,000 new blue luxury cars were sold in 2002, then, based on the graph, which of the following is closest to the total number of new luxury cars that were sold that year?

(A) 8,730
(B) 88,270
(C) 89,000
(D) 105,730
(E) 1,080,000

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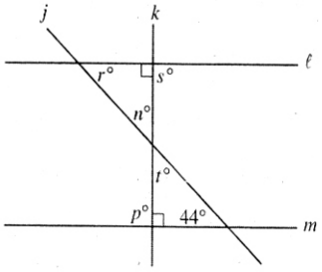

5. In the figure above, lines j, k, ℓ, and m intersect as shown. Which of the following is greater than 90 ?

(A) p
(B) $t+n$
(C) $n+r$
(D) $t+r$
(E) s

6. Anna Maria bought 3 more boxes of pencils than boxes of erasers. There are 10 pencils in each box of pencils and 20 erasers in each box of erasers. If the number of pencils that Anna Maria bought equals the number of erasers that she bought, how many pencils did Anna Maria buy?

(A) 60
(B) 45
(C) 30
(D) 25
(E) 10

7. Circles A and B have radii of 2 and 3, respectively. How much greater is the circumference of circle B than the circumference of circle A ?

(A) 5π
(B) 4π
(C) 3π
(D) 2π
(E) π

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8. Let the operation $\triangle$ be defined by $x \triangle y = \frac{x}{y} + \frac{y}{x}$ for all nonzero numbers x and y. What is the value of $5 \triangle 5$?

(A) $\frac{1}{5}$

(B) 1

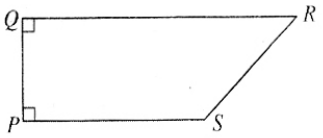
(C) 2

(D) 5

(E) $5\frac{1}{5}$

9. A computer programmer has 180 hours allotted for projects A, B, and C. If $\frac{1}{3}$ of this time is used for project A and $\frac{3}{4}$ of the remaining time is used for project B, how many hours does the programmer have left for project C?

(A) 30
(B) 45
(C) 60
(D) 75
(E) 90



Note: Figure not drawn to scale.

10. In the figure above, $PQ = 12$, $QR = 27$, and $PS = 18$. What is the length of $\overline{RS}$?

(A) 15
(B) 18
(C) 21
(D) $3\sqrt{7}$
(E) $12\sqrt{2}$

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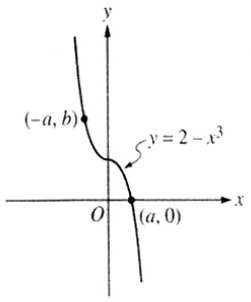
11. If $x^2 = 3$ and $y^2 = 16$, then $(x + 2y)^2$ could equal which of the following?

(A) 67
(B) 73
(C) 259
(D) $73 - 16\sqrt{3}$
(E) $67 + 16\sqrt{3}$

10, 40, 0, x, 50, 30, 20

12. In the list above, the value of x is the same as the value of one of the other numbers listed. What are all the possible values for the median of these seven numbers?

(A) 20 only
(B) 25 only
(C) 30 only
(D) 20 and 30 only
(E) 10, 20, 30, and 40



13. In the figure above, the points $(a, 0)$ and $(-a, b)$ lie on the graph of $y = 2 - x^3$. What is the value of b?

(A) 4
(B) 8
(C) $\sqrt[3]{2}$
(D) $2\sqrt[3]{2}$
(E) $\sqrt[3]{4}$

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14. If $(x - y)^x = 1$ and $y^x = 1$, where x and y are positive integers, what is the value of x ?

(A) 1
(B) 2
(C) 3
(D) 4
(E) 5

15. In the decimal representation of $\frac{1}{k}$, where $0 < \frac{1}{k} < 1$, the tenths digit is 1, the hundredths digit is 3, and at least one other digit is nonzero. What is the tenths digit in the decimal representation of $\frac{k-1}{k}$?

(A) 5
(B) 6
(C) 7
(D) 8
(E) 9

5, a, b, 5, . . .

16. In the sequence above, the first term is 5 and the second term is a. Each term after the second is the product of the two immediately preceding terms. If $a < 0$, what is the 10th term of the sequence?

(A) -5^{21}
(B) -5^{10}
(C) 5
(D) 5^{10}
(E) 5^{21}

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.

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SECTION 9

Time — 20 minutes
20 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

Ⓐ Ⓑ Ⓒ Ⓓ ●

1. In Dorothy West's novel *The Living Is Easy*, the main character feels ------- by her father's authority, resenting his attempts to check her -------.

   (A) favored . . growth
   (B) fascinated . . anger
   (C) trapped . . patience
   (D) revived . . energy
   (E) limited . . independence

2. Believing that the problem could be solved if enough information were garnered, the scientist vowed to ------- her research as long as some ------- of obtaining additional data existed.

   (A) persevere in . . likelihood
   (B) dispense with . . pretext
   (C) minimize . . prospect
   (D) extend . . doubtfulness
   (E) terminate . . probability

3. Once the animal's usual sources of nourishment have been exhausted, acorns are its only means of -------.

   (A) resuscitation (B) distraction
   (C) subsistence (D) camouflage
   (E) rehabilitation

4. Although many of the students had found the assignment -------, Harrison completed it with ease.

   (A) frivolous (B) timely (C) gratifying
   (D) arduous (E) mundane

5. Juan is ------- examining his own feelings and motives: he cannot tolerate -------.

   (A) embarrassed about . . adulation
   (B) accustomed to . . self-evaluation
   (C) averse to . . introspection
   (D) mindful of . . meditation
   (E) leery of . . spontaneity

6. The new governor attempted to win the public's sympathy by ------- himself as the ------- inheritor of his predecessor's fiscal mismanagement.

   (A) casting . . hapless
   (B) portraying . . complicit
   (C) selling . . deceitful
   (D) defending . . grateful
   (E) commending . . cynical

GO ON TO THE NEXT PAGE

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The two passages below are followed by questions based on their content and on the relationship between the two 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 7-20 are based on the following passages.

These passages are excerpts from two different histories of rock-and-roll music in the United States. Both passages were written in the 1980s.

Passage 1

As I was passing as unconsciously as possible through one of humanity's most insidious institutions, junior high school, something dramatic yet subtle was taking place in my teenage consciousness. I didn't recognize it for what it was at the time. Nobody did. But it was happening to all of us, just the same. It didn't take long for adults to tell us what it was, however, and they weren't very happy. They called it primitive, communistic, filthy, smutty, and obscene; we called it rock and roll. We were both right.

Today, with over 30 years of hindsight available, the whole phenomenon seems relatively clear and, if possible, even more provocative than it seemed at its inception. What I and my fellow sufferers were experiencing was the beginning of America's first genuine cultural revolution. This statement may seem exaggerated for two somewhat contradictory reasons. First, we've always been taught that America's war of independence from England was a true revolution, something of an exaggeration in itself. Second, and more important, we're reluctant to give up the American myth of a slow and steady (but inevitable) progress toward an earthly perfection. Americans have always tolerated many more disagreements over the nature of their goals than over how they could be achieved. The process was expected to be rational, well ordered, and continuous. So even to suggest the possibility of a cultural revolution in America must appear not only factually absurd but blasphemous as well. Revolution is as heretical a doctrine in America as abolishing the monarchy would be in England. Nevertheless, despite the overwhelmingly conservative assumptions of most Americans, we are in fact in the throes of a genuine and dramatic revolution in our culture, and it behooves us to understand it before passing judgment.

From its beginnings, rock music has challenged the basic values of the culture in which it emerged: not all at once, not always self-consciously, certainly not programmatically, but surely and steadily nevertheless. First came challenges to the accepted beliefs about sex, race, and work; then nationalism, war, and economics came under attack. By implication, of course, the entire conception of reality that supported these values was negated. Essentially, what was being rejected was a particular view of the American tradition, with its firm convictions about destiny, inevitable progress, absolutist morality, and fixed social positions. Sociologists had been studying and criticizing this value scheme. Rock and roll, however, didn't propose to study it; rock and roll proposed to abolish it.

Passage 2

In its beginnings, rock and roll was the music of teens and very young adults. But as we entered the 1970s, an inevitable fact became obvious: those 1950s teenagers were entering middle age and they still liked rock. A baby born in 1940 was fifteen years old when "Rock Around the Clock" hit number one; in 1970 that same person turned thirty but very likely still liked Elvis, the Beach Boys, Dylan, and the Beatles. And in 1985 that "baby" was solidly middle-aged and in all probability still liked those artists as well as a few newer ones—established groups and performers such as Chicago, Fleetwood Mac, and Lionel Richie. Notice the number of "classic rock" and "adult rock" radio stations on your FM dial? Those are aimed at a relatively affluent segment of the adult population that is roughly thirty-five to fifty years old. These people are hitting their peak earning years (a fact of considerable interest to radio advertisers), and they want to hear their favorite artists from the 1950s and 1960s, as well as a few of the more conservative acts of the 1970s and 1980s. Indeed, the rock market now extends to people in their fifties.

At the other end of this demographic expansion are the preteens. The lowering of the age of rock consumerism has accelerated with the coming of MTV and other televised rock video formats. It should come as no surprise to anyone that children—little children—like television. While parents and older siblings are at work, at school, or elsewhere, younger kids have a choice of cartoons, reruns, game shows, or the most up-to-date rock videos. The television rock videos have brought an increasingly younger population into the world of rock and roll.

What this means is that rock and roll is no longer a teen-oriented countercultural phenomenon. It now pervades much of American culture. It cuts across economic groups, social levels, and ethnic groups. The rock style permeates movie music, music for television, advertising music, jazz, music at athletic events, church music, and country music. Granted, *within rock* there are countercultural trends, but as a generic entity, rock so permeates our entire culture that other styles of music—such as jazz, classical, and pure country and western—are considered to be on the fringe, admired by small subcultural groups.

GO ON TO THE NEXT PAGE

7. Which of the following best states the relationship between the two passages?

(A) Passage 1 assesses the impact of a phenomenon, whereas Passage 2 offers a demographic perspective on that same phenomenon.
(B) Passage 1 sketches the historical causes of an event, whereas Passage 2 considers that event from a contemporary perspective.
(C) Passage 1 criticizes the existence of a certain attitude, whereas Passage 2 argues that this attitude is inevitable.
(D) Passage 1 provides a personal reflection on a movement, whereas Passage 2 predicts the implications of that movement.
(E) Passage 1 urges readers to undertake a particular course of action, whereas Passage 2 offers a sober consideration of the dangers of doing so.

8. The two authors would most likely agree with which of the following statements?

(A) Most rock music continues to question personal beliefs and national politics.
(B) The effect that rock and roll would have on society was not anticipated in the 1950s.
(C) A phenomenon such as popular music ought to be appreciated for what it is, not studied or classified.
(D) Even those people who once strongly objected to rock and roll will eventually come to appreciate it.
(E) Were it not for radio and television, rock music would not have had such a major influence on culture.

9. Which respectively describes the attitudes toward rock music of the "adults" (line 6, Passage 1) and the "people" (line 64, Passage 2) ?

(A) Apathetic . . passionate
(B) Ambivalent . . accepting
(C) Intrigued . . uninterested
(D) Disapproving . . appreciative
(E) Fearful . . baffled

10. In line 8, "primitive" most nearly means

(A) fundamental
(B) archetypal
(C) self-taught
(D) barbaric
(E) original

11. The author's strategy in the first paragraph of Passage 1 is best described as one that uses

(A) a series of hypothetical questions to set up a debate
(B) a set of well-established facts to persuade the reader
(C) personal experience to engage the reader
(D) exaggerated ridicule to discredit an idea
(E) understatement to satirize a point of view

12. Why are the "reasons" discussed in lines 15-21 characterized by the author as "contradictory" ?

(A) Americans are critical of their country's revolution but do not fully understand the revolution's significance.
(B) No cultural revolution has taken place, but there are signs of one.
(C) Americans like to think of their country as having been created by revolution, yet they do not believe in sudden change.
(D) Adults who publicly railed against rock and roll had to admit that they privately enjoyed it.
(E) Although rock and roll began as a rebellion against authority, it has become an arbiter of societal norms.

13. In lines 25-29 ("So even . . . England"), the author of Passage 1 suggests that most Americans are essentially

(A) suggestible
(B) malcontented
(C) cautious
(D) unorthodox
(E) illogical

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14. In lines 35-37 in Passage 1 ("not . . . programmatically") and line 86 in Passage 2 ("Granted . . . trends"), each author attempts to

(A) undermine a fallacy
(B) rebut an argument
(C) reiterate an idea
(D) qualify an assertion
(E) dismiss a tendency

15. Based on the information in Passage 2, its author would most likely agree with which of the following views?

(A) Because it was intended primarily as entertainment, rock and roll has not engaged in serious social criticism.
(B) Because of its adaptability and consumer appeal, rock and roll has been easily assimilated into society.
(C) Because it is the music of the young, rock and roll has retained an innovative spirit.
(D) Because rock-and-roll musicians have not constituted a unified group, their political goals, while sincere, have remained unfocused.
(E) Because most adults did not appreciate rock and roll, they could not have been significantly changed by it.

16. In line 64, "hitting" most nearly means

(A) requesting
(B) discovering
(C) winning
(D) striking
(E) reaching

17. Which of the following most resembles the phenomenon described in lines 80-85, Passage 2 ("What this . . . country music") ?

(A) People are less familiar with classical music today than they were in the nineteenth century.
(B) Stylistic features once found exclusively in folk art are now prevalent in a wide variety of visual art forms.
(C) Creating movies from well-received Broadway musicals has become more common today than it was in the past.
(D) Although people read fewer books for pleasure today than people did three decades ago, overall book sales have been steadily increasing.
(E) Previously disparaged by critics, comic books have recently become the subject of several academic literary studies.

18. The examples given in lines 84-85 in Passage 2 ("movie music . . . country music") serve primarily to

(A) illustrate how pervasive rock music has become
(B) demonstrate how rock music is more appropriate in some situations than in others
(C) suggest that the most popular activities are those that include rock music
(D) offer specific reasons why both children and older people have become interested in rock music
(E) note instances in which rock musicians have profited from their music

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19. A major point of difference between the two passages is that Passage 1

(A) presents rock and roll as a radical departure from previous musical styles, whereas Passage 2 presents it as a natural step in the evolution of musical trends
(B) views only the first generation of rock and roll as authentic, whereas Passage 2 argues that the music blossomed only in later generations
(C) argues that radicals created rock and roll, whereas Passage 2 argues that rock and roll created radicals
(D) argues that American society is fundamentally revolutionary, whereas Passage 2 argues that it is fundamentally conservative
(E) argues that rock and roll is primarily an expression of dissent, whereas Passage 2 argues that it evolved into a part of ordinary life

20. The argument in Passage 2 differs from the argument in Passage 1 in that Passage 2

(A) explores the way rock recordings are sold, whereas Passage 1 explores the feelings listeners have about rock recordings
(B) takes an optimistic view about the relationship between rock musicians and society, whereas Passage 1 takes a pessimistic view
(C) emphasizes rock's commercial aspects, whereas Passage 1 places rock in a broad social context
(D) focuses strictly on rock, whereas Passage 1 considers many different types of music
(E) urges adults to rediscover rock, whereas Passage 1 urges adolescents to explore a range of music beyond rock

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.

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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 <u>and she was sixty-five years old then</u>.

(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

Ⓐ ● Ⓒ Ⓓ Ⓔ

1. <u>Abidjan, a port city, no longer the capital of Ivory Coast, but still the country's economic center.</u>

   (A) Abidjan, a port city, no longer the capital of Ivory Coast, but still the country's economic center.
   (B) A port city, Abidjan is no longer the capital of Ivory Coast, it is still the country's economic center.
   (C) Although it is no longer the capital of Ivory Coast, the port city of Abidjan is still the country's economic center.
   (D) No longer the capital of Ivory Coast, but the port city of Abidjan is still the country's economic center.
   (E) While no longer the capital of the country, but Abidjan, a port city, is still the economic center of Ivory Coast.

2. By investigating Saturn's rings, <u>it is hoped by scientists to achieve greater insight</u> into the composition of stars and planetary systems.

   (A) it is hoped by scientists to achieve greater insight
   (B) it is hoped that scientists' insight will be more greatly achieved
   (C) the insight of scientists will be achieved more greatly, hopefully,
   (D) the hope is for scientists to achieve greater insight
   (E) scientists hope to achieve greater insight

3. <u>Countries included in this varied and interesting study of economic theory was</u> the United Kingdom, Germany, Sweden, and France.

   (A) Countries included in this varied and interesting study of economic theory was
   (B) Countries included in this varied and interesting study of economic theory were
   (C) Countries being included in this varied and interesting study of economic theory was
   (D) Varied and interesting, this study of economic theory included countries that were
   (E) In this varied and interesting study of economic theory, such countries included as

4. It came as something of a surprise that the state supreme court struck down the new law, <u>which had passed so easily</u> in the state legislature.

   (A) which had passed so easily
   (B) they had passed it so easily
   (C) having passed it so easily
   (D) so easily has it passed
   (E) it passed so easily

GO ON TO THE NEXT PAGE

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5. Nominated for vice president of the United States in 1884 and 1888, and frontier feminist, is Marietta Stow, endorsing protection of widows' rights and racial equality.

(A) and frontier feminist, is Marietta Stow, endorsing protection
(B) frontier feminist Marietta Stow endorsed protection
(C) thus frontier feminist Marietta Stow is endorsing protection
(D) which is Marietta Stow, who had endorsed the protecting
(E) a frontier feminist, Marietta Stow, who endorsed protection

6. Despite repeated warnings by traffic safety experts, many automobile accidents still occur while both driving and talking on cell phones.

(A) both driving and
(B) both driving as well as
(C) they drive, simultaneously
(D) drivers are
(E) drivers were

7. The foreman's strict enforcement of factory protocol was not him being inflexible but the result of a determination to maintain a safe workplace.

(A) was not him being inflexible but the result of a determination
(B) was not his inflexibility but resulted from being determined
(C) resulted not from inflexibility, but he was determined
(D) resulted not from inflexibility but from a determination
(E) resulted not so much from being inflexible as it was a determination

8. Acting on a tip from an anonymous informant, a cache of counterfeit money and stolen credit cards were seized by federal agents during a raid on a local nightclub early yesterday morning.

(A) a cache of counterfeit money and stolen credit cards were seized by federal agents
(B) a cache of counterfeit money and stolen credit cards was seized by federal agents
(C) there was a cache of counterfeit money and stolen credit cards that federal agents seized
(D) federal agents would seize a cache of counterfeit money and stolen credit cards
(E) federal agents seized a cache of counterfeit money and stolen credit cards

9. A Seneca Indian with legal training, Ely Parker made history by writing out the terms of the final Confederate surrender at the end of the American Civil War.

(A) A Seneca Indian with legal training,
(B) As a Seneca Indian to have been trained in the law,
(C) Because he has had legal training, Seneca Indian
(D) With legal training, and being a Seneca Indian.
(E) With having been, as a Seneca Indian, trained in the law,

10. When we were cleaning the garage, my sister and I found the old soccer ball in a dark corner we used to play with when we were young.

(A) the old soccer ball in a dark corner we used to play with when we were young
(B) in a dark corner from when we were young the old soccer ball we played with
(C) in a dark corner the old soccer ball we used to play with when we were young
(D) the old soccer ball in a dark corner, we used to play with it when we were young
(E) the old soccer ball, having played with it when we were young, in a dark corner

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any part of this page is illegal.

11. In the novel *Agnes Gray*, Anne Brontë presented a fictionalized account of both she and her sister's bizarre experiences as teachers in the houses of Victorian aristocrats.

(A) of both she and her sister's bizarre experiences as teachers
(B) of both her and her sister's bizarre experiences as teachers
(C) of both she and her sister's bizarre experiences teaching
(D) about the bizarre experiences both her and her sister had as a teacher
(E) about the bizarre experiences as teachers both her and her sister had

12. A sequence of training sessions on the use of the new equipment is scheduled for this coming Tuesday at the technology laboratory.

(A) is
(B) are
(C) being
(D) have been
(E) having been

13. While trimming his forsythia bush, an overgrown mass of vegetation that had just begun to flower, an indignant bee stung poor Mr. Nettleworth on the wrist.

(A) an indignant bee stung poor Mr. Nettleworth on the wrist
(B) there was an indignant bee that stung poor Mr. Nettleworth on his wrist
(C) poor Mr. Nettleworth's wrist was stung by an indignant bee
(D) poor Mr. Nettleworth was stung on the wrist by an indignant bee
(E) poor Mr. Nettleworth was stung on his wrist from an indignant bee

14. The crowds that flocked to the World's Fair in Chicago in 1893 were larger and more enthusiastic than the crowds at the World's Fair in Paris had been a few years earlier.

(A) than the crowds at the World's Fair in Paris had been
(B) than was the World's Fair in Paris
(C) than the World's Fair in Paris
(D) unlike the World's Fair in Paris crowds
(E) in comparison to those at the World's Fair in Paris

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.**

Correct Answers and Difficulty Levels
Form Codes AEFA, BWFA, CFFA

Critical Reading

Section 3

	COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.
1.	E	1	13.	E	2
2.	B	2	14.	C	5
3.	D	4	15.	D	2
4.	C	4	16.	E	3
5.	B	5	17.	D	3
6.	D	1	18.	C	4
7.	E	2	19.	A	5
8.	A	2	20.	E	5
9.	D	2	21.	B	5
10.	D	1	22.	B	3
11.	E	2	23.	C	4
12.	D	3	24.	C	4

Number correct

Number incorrect

Section 7

	COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.
1.	A	1	13.	E	1
2.	B	3	14.	D	2
3.	E	3	15.	E	3
4.	A	3	16.	C	3
5.	A	3	17.	A	4
6.	A	3	18.	B	5
7.	B	5	19.	D	3
8.	E	5	20.	A	3
9.	E	1	21.	D	3
10.	C	2	22.	B	3
11.	D	1	23.	A	2
12.	C	1			

Number correct

Number incorrect

Section 9

	COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.
1.	E	3	11.	C	2
2.	A	3	12.	C	3
3.	C	3	13.	C	5
4.	D	3	14.	D	5
5.	C	3	15.	B	3
6.	A	5	16.	E	1
7.	A	4	17.	B	3
8.	B	4	18.	A	3
9.	D	2	19.	E	4
10.	D	1	20.	C	4

Number correct

Number incorrect

Mathematics

Section 2

Multiple-Choice Questions

	COR. ANS.	DIFF. LEV.
1.	D	1
2.	E	2
3.	E	3
4.	C	2
5.	D	3
6.	B	3
7.	D	3
8.	C	4

Number correct

Number incorrect

Student-Produced Response Questions

	COR. ANS.	DIFF. LEV.
9.	2.5 or 5/2	2
10.	245, 281, 425 or 821	3
11.	20	1
12.	12	3
13.	125	3
14.	5000	3
15.	42	4
16.	5<x<6	4
17.	4000	4
18.	4/3 or 1.33	5

Number correct (9-18)

Section 4

	COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.
1.	C	1	11.	A	3
2.	E	1	12.	B	3
3.	B	1	13.	D	3
4.	C	1	14.	D	4
5.	E	1	15.	E	4
6.	E	2	16.	C	4
7.	B	1	17.	A	4
8.	A	3	18.	D	4
9.	B	3	19.	D	5
10.	B	3	20.	C	5

Number correct

Number incorrect

Section 8

	COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.
1.	A	1	9.	A	3
2.	A	1	10.	A	2
3.	B	1	11.	E	3
4.	E	2	12.	D	3
5.	B	2	13.	A	4
6.	A	2	14.	B	3
7.	D	3	15.	D	5
8.	C	3	16.	E	5

Number correct

Number incorrect

Writing Multiple-Choice

Section 6

	COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.
1.	E	1	10.	A	3	19.	D	3	28.	A	4
2.	E	1	11.	C	3	20.	D	3	29.	D	5
3.	A	2	12.	B	1	21.	B	4	30.	A	2
4.	B	2	13.	D	1	22.	A	3	31.	B	4
5.	A	2	14.	D	1	23.	C	3	32.	D	5
6.	B	2	15.	A	2	24.	C	3	33.	C	2
7.	C	3	16.	D	1	25.	C	4	34.	A	3
8.	C	2	17.	A	1	26.	E	3	35.	E	3
9.	E	2	18.	D	3	27.	C	4			

Number correct

Number incorrect

Section 10

	COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.		COR. ANS.	DIFF. LEV.
1.	C	1	6.	D	3	11.	B	3
2.	E	1	7.	D	3	12.	A	3
3.	B	1	8.	E	3	13.	D	3
4.	A	2	9.	A	3	14.	A	4
5.	B	2	10.	C	3			

Number correct

Number incorrect

NOTE: Difficulty levels are estimates of question difficulty for a reference group of college-bound seniors. Difficulty levels range from 1 (easiest) to 5 (hardest).

The Scoring Process

1. **Scanning.** Your answer sheet is scanned electronically, and the circle you filled in for each question is recorded in a computer file.

2. **Scoring.** The computer compares the circle filled in for each question with the correct response.

   - Each correct answer receives one point.
   - Omitted questions do not count toward your score.
   - One-fourth of a point is subtracted for each wrong answer to multiple-choice questions. No points are subtracted for wrong answers to the student-produced response mathematics questions.

     Example:

     The critical reading section, for example, has 67 questions. If you have 37 right, 28 wrong, and 2 omitted, the resulting raw score of 30 is determined as follows:

     $37 - 28\ (1/4) = 37 - 7 = 30$

   - If the raw score is a fractional number, it is rounded to the nearest whole number. For example, a raw score of 36.25 is rounded to 36, the nearest whole number. A raw score of 36.50 is rounded upward to 37.

3. **Essay scoring.** Using the scoring guide shown on page 52, specially trained high school and college teachers score the essay. Each essay is read independently by two readers who rate it on a scale of 1 to 6. (If the two scores differ by more than one point, a third reader scores the essay.) The two readers' scores are added together, and the essay subscore is reported on a scale of 2 to 12. The essay section is worth approximately 30 percent of the raw score, and the multiple-choice writing section counts for approximately 70 percent.

4. **Converting raw scores to scaled scores.** Raw scores are then placed on the scale of 200–800 through a process that adjusts scores to account for minor differences in difficulty among different editions of the test. This process, known as equating, is performed so that a student's reported score is not affected by the edition of the test taken or by the abilities of the group with whom the student takes the test. As a result of placing SAT scores on the College Board scale, scores earned by students at different times can be compared. For example, an SAT mathematics score of 400 on a test taken at one administration indicates the same level of developed mathematics ability as a 400 score obtained on a different edition of the test taken at another time.

SAT Essay Scoring Guide

SCORE OF 6

An essay in this category demonstrates *clear and consistent mastery,* although it may have a few minor errors. A typical essay

- effectively and insightfully develops a point of view on the issue and demonstrates outstanding critical thinking, using clearly appropriate examples, reasons, and other evidence to support its position
- is well organized and clearly focused, demonstrating clear coherence and smooth progression of ideas
- exhibits skillful use of language, using a varied, accurate, and apt vocabulary
- demonstrates meaningful variety in sentence structure
- is free of most errors in grammar, usage, and mechanics

SCORE OF 5

An essay in this category demonstrates *reasonably consistent mastery,* although it will have occasional errors or lapses in quality. A typical essay

- effectively develops a point of view on the issue and demonstrates strong critical thinking, generally using appropriate examples, reasons, and other evidence to support its position
- is well organized and focused, demonstrating coherence and progression of ideas
- exhibits facility in the use of language, using appropriate vocabulary
- demonstrates variety in sentence structure
- is generally free of most errors in grammar, usage, and mechanics

SCORE OF 4

An essay in this category demonstrates *adequate mastery,* although it will have lapses in quality. A typical essay

- develops a point of view on the issue and demonstrates competent critical thinking, using adequate examples, reasons, and other evidence to support its position
- is generally organized and focused, demonstrating some coherence and progression of ideas
- exhibits adequate but inconsistent facility in the use of language, using generally appropriate vocabulary
- demonstrates some variety in sentence structure
- has some errors in grammar, usage, and mechanics

SCORE OF 3

An essay in this category demonstrates *developing mastery,* and is marked by ONE OR MORE of the following weaknesses:

- develops a point of view on the issue, demonstrating some critical thinking, but may do so inconsistently or use inadequate examples, reasons, or other evidence to support its position
- is limited in its organization or focus, or may demonstrate some lapses in coherence or progression of ideas
- displays developing facility in the use of language, but sometimes uses weak vocabulary or inappropriate word choice
- lacks variety or demonstrates problems in sentence structure
- contains an accumulation of errors in grammar, usage, and mechanics

SCORE OF 2

An essay in this category demonstrates *little mastery,* and is flawed by ONE OR MORE of the following weaknesses:

- develops a point of view on the issue that is vague or seriously limited, and demonstrates weak critical thinking, providing inappropriate or insufficient examples, reasons, or other evidence to support its position
- is poorly organized and/or focused, or demonstrates serious problems with coherence or progression of ideas
- displays very little facility in the use of language, using very limited vocabulary or incorrect word choice
- demonstrates frequent problems in sentence structure
- contains errors in grammar, usage, and mechanics so serious that meaning is somewhat obscured

SCORE OF 1

An essay in this category demonstrates *very little* or *no mastery,* and is severely flawed by ONE OR MORE of the following weaknesses:

- develops no viable point of view on the issue, or provides little or no evidence to support its position
- is disorganized or unfocused, resulting in a disjointed or incoherent essay
- displays fundamental errors in vocabulary
- demonstrates severe flaws in sentence structure
- contains pervasive errors in grammar, usage, or mechanics that persistently interfere with meaning

Essays not written on the essay assignment will receive a score of zero.

Scoring Worksheet for Form Codes AEFA, BWFA, CFFA

From your responses on your QAS report, fill in the blanks below and do the calculations to get your critical reading, mathematics, and writing raw scores. Use the tables on the following pages to find your scaled scores.

Get Your Critical Reading Score

How many critical reading questions did you get **right**?

Section 3: Questions 1–24 _____

Section 7: Questions 1–23 + _____

Section 9: Questions 1–20 + _____

Total = _____(A)

How many critical reading questions did you get **wrong**?

Section 3: Questions 1–24 _____

Section 7: Questions 1–23 + _____

Section 9: Questions 1–20 + _____

Total = _____

× 0.25 = _____(B)

A – B = _____
Critical Reading Raw Score

Round the critical reading raw score to the nearest whole number.

_____

Use the table on page 54 to find your critical reading scaled score.

_____

Get Your Mathematics Score

How many mathematics questions did you get **right**?

Section 2: Questions 1–18 _____

Section 4: Questions 1–20 + _____

Section 8: Questions 1–16 + _____

Total = _____(A)

How many **multiple-choice** mathematics questions did you get **wrong**?

Section 2: Questions 1–8 _____

Section 4: Questions 1–20 + _____

Section 8: Questions 1–16 + _____

Total = _____

× 0.25 = _____(B)

A – B = _____
Mathematics Raw Score

Round the mathematics raw score to the nearest whole number.

_____

Use the table on page 54 to find your mathematics scaled score.

_____

Get Your Writing Score

How many multiple-choice writing questions did you get **right**?

Section 6: Questions 1–35 _____

Section 10: Questions 1–14 + _____

Total = _____(A)

How many multiple-choice writing questions did you get **wrong**?

Section 6: Questions 1–35 _____

Section 10: Questions 1–14 + _____

Total = _____

× 0.25 = _____(B)

A – B = _____
Writing Multiple-Choice Raw Score

Round the writing multiple-choice raw score to the nearest whole number.

_____(C)

Use the table on page 54 to find your writing multiple-choice scaled score.

_____

Copy your essay score from your QAS report.

_____(D)

Use the appropriate writing composite table (pages 55–57) for your form code and look up your writing multiple-choice raw score (C) and your essay score (D) to find your writing composite scaled score.

_____

SAT Score Conversion Table
Form Codes AEFA, BWFA, CFFA

Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Multiple-Choice Scaled Score	Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Multiple-Choice Scaled Score
67	800			31	500	540	54
66	800			30	500	530	53
65	800			29	490	530	52
64	790			28	480	520	51
63	770			27	470	510	50
62	750			26	470	500	49
61	740			25	460	490	48
60	730			24	450	490	48
59	710			23	450	480	47
58	700			22	440	470	46
57	690			21	430	460	45
56	680			20	430	450	44
55	670			19	420	450	43
54	660	800		18	410	440	43
53	650	790		17	410	430	42
52	640	760		16	400	420	41
51	640	740		15	390	410	40
50	630	720		14	390	400	39
49	620	710	80	13	380	400	38
48	610	700	76	12	370	390	38
47	610	690	73	11	360	380	37
46	600	680	71	10	360	370	36
45	590	670	69	9	350	360	35
44	590	660	68	8	340	350	34
43	580	650	66	7	330	340	33
42	570	640	65	6	320	330	32
41	570	630	64	5	310	310	31
40	560	620	62	4	300	300	30
39	550	610	61	3	290	290	28
38	550	600	60	2	270	270	27
37	540	600	59	1	260	250	25
36	540	590	58	0	240	230	23
35	530	580	57	-1	220	210	21
34	520	570	56	-2	200	200	20
33	520	560	55	and			
32	510	550	55	below			

This table is for use only with the test in this booklet.

SAT Writing Composite Score Conversion Table
Form Code AEFA

Writing MC Raw Score	Essay Raw Score											
	12	11	10	9	8	7	6	5	4	3	2	0
49	800	800	800	790	770	750	730	710	700	690	670	660
48	800	790	770	760	730	710	690	680	660	650	630	620
47	790	770	750	740	710	690	670	650	640	630	610	600
46	770	750	730	720	690	670	650	640	630	610	590	580
45	750	740	720	710	680	660	640	620	610	600	580	570
44	740	720	710	690	660	640	630	610	600	580	570	560
43	730	710	690	680	650	630	610	600	590	570	560	540
42	720	700	680	670	640	620	600	590	570	560	540	530
41	710	690	670	660	630	610	590	580	560	550	530	520
40	700	680	660	650	620	600	580	570	550	540	520	510
39	690	670	650	640	610	590	570	560	550	530	510	500
38	680	660	650	630	600	580	560	550	540	520	510	500
37	670	650	640	620	590	570	560	540	530	510	500	490
36	660	640	630	610	590	560	550	530	520	500	490	480
35	650	640	620	610	580	560	540	520	510	500	480	470
34	650	630	610	600	570	550	530	510	500	490	470	460
33	640	620	600	590	560	540	520	510	500	480	470	450
32	630	610	600	580	550	530	520	500	490	470	460	450
31	620	610	590	580	550	530	510	490	480	470	450	440
30	620	600	580	570	540	520	500	480	470	460	440	430
29	610	590	570	560	530	510	490	480	470	450	440	420
28	600	580	570	550	530	500	490	470	460	440	430	420
27	590	580	560	550	520	500	480	460	450	440	420	410
26	590	570	550	540	510	490	470	460	440	430	410	400
25	580	560	550	530	500	480	470	450	440	420	410	400
24	570	560	540	520	500	480	460	440	430	420	400	390
23	570	550	530	520	490	470	450	430	420	410	390	380
22	560	540	520	510	480	460	440	430	420	400	390	380
21	550	530	520	500	480	450	440	420	410	390	380	370
20	540	530	510	500	470	450	430	410	400	390	370	360
19	540	520	500	490	460	440	420	410	400	380	360	350
18	530	510	500	480	460	430	420	400	390	370	360	350
17	520	510	490	480	450	430	410	390	380	370	350	340
16	520	500	480	470	440	420	400	390	380	360	340	330
15	510	490	480	460	430	410	400	380	370	350	340	330
14	500	490	470	460	430	410	390	370	360	350	330	320
13	500	480	460	450	420	400	380	360	350	340	320	310
12	490	470	460	440	410	390	380	360	350	330	320	310
11	480	470	450	430	410	390	370	350	340	330	310	300
10	480	460	440	430	400	380	360	340	330	320	300	290
9	470	450	430	420	390	370	350	340	330	310	290	280
8	460	440	430	410	380	360	350	330	320	300	290	280
7	450	430	420	400	380	350	340	320	310	290	280	270
6	440	430	410	400	370	350	330	310	300	290	270	260
5	430	420	400	390	360	340	320	300	290	280	260	250
4	420	410	390	380	350	330	310	290	280	270	250	240
3	410	400	380	360	340	320	300	280	270	260	240	230
2	400	380	370	350	320	300	290	270	260	240	230	220
1	390	370	350	340	310	290	270	250	240	230	210	200
0	370	350	340	320	290	270	260	240	230	210	200	200
-1	350	330	320	300	280	250	240	220	210	200	200	200
-2	330	320	300	290	260	240	220	200	200	200	200	200
-3 and below	320	300	280	270	240	220	200	200	200	200	200	200

This table is for use only with the test in this booklet.

SAT Writing Composite Score Conversion Table
Form Code BWFA

Writing MC Raw Score	Essay Raw Score											
	12	11	10	9	8	7	6	5	4	3	2	0
49	800	800	800	790	770	740	720	710	700	680	670	660
48	800	790	770	760	730	710	690	670	660	650	630	620
47	780	760	750	730	710	680	670	650	640	630	610	600
46	770	750	730	720	690	670	650	630	620	610	590	580
45	750	730	720	700	680	650	630	620	610	590	580	570
44	740	720	700	690	660	640	620	600	590	580	560	560
43	730	710	690	680	650	630	610	590	580	570	550	540
42	720	700	680	670	640	620	600	580	570	560	540	530
41	710	690	670	660	630	610	590	570	560	550	530	520
40	700	680	660	650	620	600	580	560	550	540	520	510
39	690	670	650	640	610	590	570	550	540	530	510	500
38	680	660	640	630	600	580	560	540	530	520	500	490
37	670	650	630	620	590	570	550	540	520	510	490	490
36	660	640	620	610	580	560	540	530	520	500	490	480
35	650	630	620	600	580	550	540	520	510	490	480	470
34	650	620	610	600	570	550	530	510	500	490	470	460
33	640	620	600	590	560	540	520	500	490	480	460	450
32	630	610	590	580	550	530	510	500	480	470	450	450
31	620	600	590	570	550	520	500	490	480	460	450	440
30	620	590	580	570	540	520	500	480	470	460	440	430
29	610	590	570	560	530	510	490	470	460	450	430	420
28	600	580	560	550	520	500	480	470	450	440	430	420
27	590	570	560	540	520	490	480	460	450	430	420	410
26	590	570	550	540	510	490	470	450	440	430	410	400
25	580	560	540	530	500	480	460	440	430	420	400	400
24	570	550	530	520	500	470	450	440	430	410	400	390
23	570	540	530	520	490	470	450	430	420	410	390	380
22	560	540	520	510	480	460	440	420	410	400	380	370
21	550	530	510	500	470	450	430	420	410	390	380	370
20	540	520	510	490	470	440	430	410	400	390	370	360
19	540	520	500	490	460	440	420	400	390	380	360	350
18	530	510	490	480	450	430	410	400	380	370	360	350
17	520	500	490	470	450	420	410	390	380	360	350	340
16	520	500	480	470	440	420	400	380	370	360	340	330
15	510	490	470	460	430	410	390	380	360	350	330	330
14	500	480	470	450	430	400	390	370	360	340	330	320
13	500	480	460	450	420	400	380	360	350	340	320	310
12	490	470	450	440	410	390	370	350	340	330	310	310
11	480	460	440	430	410	380	360	350	340	320	310	300
10	470	450	440	430	400	370	360	340	330	320	300	290
9	470	450	430	420	390	370	350	330	320	310	290	280
8	460	440	420	410	380	360	340	320	310	300	280	280
7	450	430	410	400	370	350	330	320	310	290	280	270
6	440	420	410	390	370	340	320	310	300	280	270	260
5	430	410	400	380	360	330	320	300	290	270	260	250
4	420	400	390	370	350	320	310	290	280	260	250	240
3	410	390	370	360	340	310	290	280	270	250	240	230
2	400	380	360	350	320	300	280	260	250	240	220	220
1	390	360	350	340	310	290	270	250	240	230	210	200
0	370	350	330	320	290	270	250	230	220	210	200	200
-1	350	330	310	300	270	250	230	220	210	200	200	200
-2	330	310	300	280	260	230	210	200	200	200	200	200
-3 and below	320	300	280	270	240	220	200	200	200	200	200	200

This table is for use only with the test in this booklet.

SAT Writing Composite Score Conversion Table
Form Code CFFA

Writing MC Raw Score	Essay Raw Score											
	12	11	10	9	8	7	6	5	4	3	2	0
49	800	800	800	780	760	740	720	710	700	680	660	660
48	790	780	760	750	720	710	690	670	660	650	630	620
47	770	760	740	720	700	680	670	650	640	620	610	600
46	760	740	720	710	690	670	650	630	620	610	590	580
45	740	720	710	690	670	650	640	620	610	590	580	570
44	730	710	700	680	660	640	620	610	590	580	560	550
43	720	700	680	670	650	630	610	590	580	570	550	540
42	700	690	670	660	640	620	600	580	570	560	540	530
41	690	680	660	650	630	610	590	570	560	550	530	520
40	690	670	650	640	620	600	580	560	550	540	520	510
39	680	660	640	630	610	590	570	560	540	530	510	500
38	670	650	640	620	600	580	560	550	530	520	500	490
37	660	640	630	610	590	570	550	540	530	510	490	490
36	650	630	620	600	580	560	550	530	520	500	490	480
35	640	630	610	590	570	550	540	520	510	490	480	470
34	630	620	600	590	560	550	530	510	500	490	470	460
33	630	610	590	580	560	540	520	510	490	480	460	450
32	620	600	590	570	550	530	510	500	490	470	450	450
31	610	600	580	560	540	520	510	490	480	460	450	440
30	600	590	570	560	530	520	500	480	470	460	440	430
29	600	580	570	550	530	510	490	480	460	450	430	420
28	590	570	560	540	520	500	490	470	460	440	430	420
27	580	570	550	530	510	490	480	460	450	430	420	410
26	580	560	540	530	510	490	470	460	440	430	410	400
25	570	550	540	520	500	480	460	450	440	420	400	400
24	560	550	530	510	490	470	460	440	430	410	400	390
23	560	540	520	510	490	470	450	430	420	410	390	380
22	550	530	520	500	480	460	440	430	410	400	380	380
21	540	530	510	490	470	450	440	420	410	390	380	370
20	530	520	500	490	460	450	430	410	400	390	370	360
19	530	510	500	480	460	440	420	410	390	380	360	350
18	520	500	490	470	450	430	420	400	390	370	360	350
17	510	500	480	470	440	430	410	390	380	370	350	340
16	510	490	480	460	440	420	400	390	370	360	340	330
15	500	480	470	450	430	410	400	380	370	350	340	330
14	490	480	460	450	420	400	390	370	360	350	330	320
13	490	470	450	440	420	400	380	370	350	340	320	310
12	480	460	450	430	410	390	380	360	350	330	310	310
11	470	460	440	420	400	380	370	350	340	320	310	300
10	470	450	430	420	400	380	360	350	330	320	300	290
9	460	440	430	410	390	370	350	340	330	310	290	290
8	450	430	420	400	380	360	350	330	320	300	290	280
7	440	430	410	390	370	350	340	320	310	290	280	270
6	430	420	400	390	360	350	330	310	300	290	270	260
5	420	410	390	380	360	340	320	300	290	280	260	250
4	410	400	380	370	340	330	310	290	280	270	250	240
3	400	390	370	360	330	310	300	280	270	250	240	230
2	390	380	360	340	320	300	290	270	260	240	230	220
1	380	360	350	330	310	290	270	260	240	230	210	200
0	360	350	330	310	290	270	260	240	230	210	200	200
-1	340	330	310	300	270	260	240	220	210	200	200	200
-2	320	310	290	280	260	240	220	200	200	200	200	200
-3 and below	310	290	280	260	240	220	200	200	200	200	200	200

This table is for use only with the test in this booklet.

Practice Sheet for Essay

This is a copy of the answer sheet provided to you on the day you tested.

SECTION 1

○ I prefer NOT to grant the College Board the right to use, reproduce, or publish my essay for any purpose beyond the assessment of my writing skills, even though my name will not be used in any way in conjunction with my essay. I understand that I am free to mark this circle with no effect on my score.

***IMPORTANT*: Use a No. 2 PENCIL. Do NOT write outside the border!**
Words written outside the essay box or written in ink **WILL NOT APPEAR** in the copy sent to be scored, and your score will be affected.

Begin your essay on this page. If you need more space, continue on the next page.

Continue on the next page if necessary.

Practice Sheet for Essay

Practice Sheet for Essay