

Form Codes AEUV, BWUV



The SAT®

Question-and-Answer Service October 2011 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®

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

This booklet contains the SAT® you took in October 2011, starting with all the essay prompts given in October, 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 misplayed 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 sat.collegeboard.org/scores. 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.org/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 verify the score on 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.

Practicing to Take the SAT Again

If you decide to take the SAT a second time, your QAS results will help you identify the specific areas and types of questions to focus on for additional practice. Free practice resources are available on sat.collegeboard.org/practice including a practice test, additional practice questions, and a helpful tool called SAT Skills Insight™. SAT Skills Insight will show you the types of skills tested on the SAT and suggestions to help you improve your skills for next time.

Now that you’re familiar with the test, you’re more prepared for the kinds of questions on the SAT. You’re also likely to be 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 about 40 points.

1



ESSAY

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ESSAY



1

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.

“Discipline” is a negative word for many people because it is associated with rigorous training, strict rules, and strong self-control. But we fail to realize that freedom comes only through discipline. Discipline compels us to sacrifice immediate rewards and pleasures, but it also gives our lives structure and prevents us from making costly mistakes. It keeps us from being subject to our impulses and weaknesses and thus frees us to achieve our true goals.

Assignment: Do people need discipline to achieve freedom? 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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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.

We are often encouraged to stop worrying about making mistakes and advised not to dwell on those we have already made. But without analyzing mistakes—decisions and actions that made a project fail, for instance—how can anyone be successful? Besides, there are some well-known mistakes others have made that seem worth studying carefully. Perhaps these mistakes could have been prevented if those responsible had been more concerned about making mistakes in the first place.

Assignment: Do people have to pay attention to mistakes in order to make 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.

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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 making of illusions—misleading images or ideas that appear to be authentic or true—has become the primary business of our society. Included in this category are not only the false promises made by advertisers and politicians but all of the activities which supposedly inform, comfort, and improve us, such as the work of our best writers and our most influential leaders. These promises and activities only encourage people to have unrealistic expectations and to ignore facts.

Adapted from Daniel J. Boorstin, *The Image*

Assignment: Are people overly influenced by unrealistic claims and misleading images? 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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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.

Although most of us do not like being criticized, it is said that we can always benefit from being told what we are doing wrong. We may lose a valuable learning opportunity if we do not listen to the criticisms expressed by others. Yet criticism, even when honest and well-intended, can be more harmful than helpful. We have more to gain by ignoring or shielding ourselves from the criticism of others.

Assignment: Are people better off if they do not listen to criticism? Plan and write an essay in which you develop your point of view on this issue. Support your position with reasoning and examples taken from your reading, studies, experience, or observations.

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

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



SECTION 2

Time — 25 minutes

24 Questions

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

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

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

Example:

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

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

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

1. *Amanita bisporigera*, a variety of destroying angel mushroom, is so ----- that it can be ----- if consumed.
 - (A) delectable . . disgusting
 - (B) poisonous . . deadly
 - (C) scarce . . dangerous
 - (D) common . . nutritious
 - (E) beautiful . . tasty
2. The politician was a ----- speaker whose debating skills were admired even by the ----- she outwitted.
 - (A) clever . . opponents
 - (B) weak . . enemies
 - (C) powerful . . advisers
 - (D) good-hearted . . voters
 - (E) bashful . . applicants
3. Michiko Shoda was not of noble rank when she married into the Japanese imperial family; she was the first ----- to do so.
 - (A) foreigner (B) landowner (C) commoner
 - (D) imposter (E) investor

4. After years of taking art history courses and visiting museums, Ed considered himself a true ----- of fine art.
 - (A) censor (B) guardian (C) pilferer
 - (D) connoisseur (E) simulator
5. The candidate ----- the media's charge of political inexperience by citing his broad background in both local and state government.
 - (A) reiterated (B) rebutted (C) relinquished
 - (D) conflated (E) disregarded
6. As reformers, Martin Luther King, Jr., and Malcolm X each sought to ----- social injustice by distinctly different means.
 - (A) resuscitate (B) exonerate (C) ameliorate
 - (D) replicate (E) elaborate
7. While the movie employs stock characterizations, admirers argue that it is ----- even if its depictions are -----.
 - (A) maladroit . . proficient
 - (B) stimulating . . controversial
 - (C) soporific . . abstruse
 - (D) compelling . . formulaic
 - (E) dismal . . maudlin
8. Believing that scientists should ----- the public about important scientific issues, marine ecologist Jane Lubchenco has urged the research community to abandon its usual ----- in favor of more effective communication.
 - (A) assuage . . diffidence
 - (B) apprise . . candor
 - (C) admonish . . probity
 - (D) edify . . reticence
 - (E) beguile . . sophistry



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

Questions 9-10 are based on the following passage.

Just how powerful was Mary Wells Lawrence, the first woman to found, own, and run a major ad agency, in her heyday? Maurice Saatchi, the kingpin of British advertising who founded the world's largest ad conglomerate, puts it this way: "If Mary had decided to go into politics instead of advertising, she'd have been America's first female president." Lawrence laughs at this. But Saatchi insists his biggest "mistake" was failing to persuade Lawrence to let him buy her agency in 1990. Saatchi was even willing to name her CEO of his holding company.

9. Saatchi's attitude toward Mary Wells Lawrence is best described as one of

(A) envy
(B) dismissal
(C) uneasiness
(D) respect
(E) compassion

10. The author most likely includes the quotation that appears in lines 5-7 in order to

(A) indicate that Lawrence was initially interested in pursuing a political career
(B) imply that Lawrence inspired women to seek the position of president of the United States
(C) suggest how influential Lawrence was in her chosen profession
(D) demonstrate that Lawrence wanted to run the top advertising agency in the world
(E) reveal the wide-ranging aspirations Lawrence had for herself

Questions 11-12 are based on the following passage.

As with so many endeavors, nature writing has become increasingly specialized. There has been a generally healthy movement from the anthropocentric to the biocentric, from human focused to world focused, a movement that Thoreau anticipated late in his life with his more scientific writing. This movement has led to some fine objective writing, but it has also led to many dull pages, exhaustive and, occasionally, exhausting works. The problem is that readers are human beings and therefore naturally interested in the human. The driving youthful question that enlivened Thoreau's *Walden*—How to live?—has been all but forgotten.

11. The author would most likely characterize *Walden* as

(A) dry and boring
(B) appropriately scientific
(C) long and exhausting to read
(D) more about literature than people
(E) fundamentally human centered

12. The passage as a whole best supports which statement about the "movement" (line 3)?

(A) It had surprisingly little impact on readers.
(B) It would have dismayed Thoreau.
(C) It vastly improved the genre of nature writing.
(D) It involved losses as well as gains.
(E) It was a regrettable development.



Questions 13-24 are based on the following passages.

These two passages discuss nuclear power in the United States. In 1979 the most serious nuclear plant accident in American history occurred at Three Mile Island in Middletown, Pennsylvania. No physical harm came to workers or people in the community, but sweeping changes in the nuclear industry resulted. Passage 1 is from a collection of essays published in 1982; Passage 2 is from a 2005 article.

Passage 1

At the present time, nuclear power contributes only 3 percent of total United States energy and 12 percent of United States electricity production. The need for additional nuclear plants in the next decade will be minimal. Excess electric generating capacity now exists in most parts of the country, partly as a result of energy conservation efforts by customers over the last few years. We now have the chance to halt further construction of the present design and to send the nuclear designers back to the drawing board. If additional nuclear power plants are to be built, let them be based on a design in which safety comes first, a system that is easy to analyze, a system that is designed specifically to contain meltdowns.

If our society is to control technology rather than let it control us, we must make choices between technologies. We cannot keep giving engineers or scientists unlimited chances to run large-scale experiments that put us all at risk. Other electricity sources such as coal power cause health effects comparable on a cumulative basis to those that will be caused by nuclear power. Many rational people tolerate the uncertain risk of a nuclear accident. Yet, I think even such people would accept the fact that a major accident is sufficiently serious, and that the probability of occurrence is sufficiently uncertain, that nuclear power cannot be perceived as a desirable technology from the perspective of safety. It certainly does not appear to be a satisfactory replacement for coal. Would it not be better to move away from both coal and nuclear power? First, we could lessen the use of these fuels by reducing the demand for electricity through construction of efficient appliances and industrial equipment; then we could replace existing plants with wind power facilities and expanded hydropower facilities.

We should think carefully whether nuclear technology is necessary. When other problems with nuclear power are considered, such as the risk of weapons proliferation and the risks from nuclear wastes, the case against nuclear power gets stronger and stronger. We already depend on one unsatisfactory source of electricity: coal power. Do we want to lock ourselves into another one?

Passage 2

On a cool spring morning 25 years ago, Three Mile Island, a place in Pennsylvania, was catapulted into the headlines and stopped the United States nuclear power industry in its tracks. What had been billed as the clean, cheap, limitless energy source for a shining future suddenly became a huge problem.

In the years since, we've searched for alternatives, pouring billions of dollars into windmills, solar panels, and biofuels. We've designed fantastically efficient lightbulbs, air conditioners, and refrigerators. We've built enough gas-fired generators to bankrupt California. But mainly, each year, we hack 400 million more tons of coal out of Earth's crust than we did a quarter century before, light it on fire, and shoot the proceeds into the atmosphere.

The consequences aren't pretty. Burning coal and other fossil fuels is driving climate change, which is blamed for everything from forest fires and hurricanes to melting polar ice sheets and coastal flooding. Furthermore, coal-burning electric power plants have fouled the air with enough heavy metals and other noxious pollutants to cause serious side effects to humans, according to a Harvard School of Public Health study. Some studies show that a coal-fired plant releases 100 times more radioactive material than an equivalent nuclear reactor—right into the air, too, not into some carefully guarded storage site. Burning hydrocarbons is a luxury that a planet with six billion energy-hungry souls can't afford. There's only one reasonable, practical alternative: nuclear power.

We now know that the risks of splitting atoms pale beside the harmful effects produced by fossil fuels. Radiation containment, waste disposal, and nuclear weapons proliferation are manageable problems in a way that global warming is not. Unlike the usual green alternatives—water, wind, solar, and biomass—nuclear energy is here, now, in industrial quantities. Sure, nuclear plants are expensive to build—upwards of two billion dollars apiece—but they start to look cheap when you factor in the true cost to people and the planet of burning fossil fuels. And nuclear is our best hope for cleanly and efficiently generating hydrogen, which would end our other ugly hydrocarbon addiction—dependence on gasoline and diesel for transport.



13. The author of Passage 1 uses statistics in lines 1-3 in order to
- suggest that current reliance on nuclear power is fairly modest
 - downplay the cost of developing alternative energy sources
 - raise concern about the safety of nuclear power plants
 - highlight a pitfall of not having adequate sources of electricity
 - emphasize the rapid growth in demand for electricity
14. Taken together, the two passages support which of the following claims about nuclear power in the United States?
- Its risks are largely unknown.
 - Its cost eclipses any of its benefits.
 - It has long been a source of controversy.
 - Its role in electricity production has been growing.
 - Its development has been slow but deliberate.
15. The tone of each passage is best described as
- emphatic
 - jocular
 - disparaging
 - impartial
 - fatalistic
16. The author of Passage 1 views the “engineers” and “scientists” (line 16) with
- approval
 - sympathy
 - puzzlement
 - wariness
 - indifference
17. Which statement would the author of Passage 2 most likely make about the approach advocated in lines 28-33, Passage 1 (“First . . . facilities”)?
- It was once impractical but is now worth pursuing.
 - It now needs to be extended beyond the production of electricity.
 - It involved more environmental risk than was justified.
 - It has been tried and thus far found wanting.
 - It underestimated the financial costs.
18. In line 37, “case” most nearly means
- issue
 - reality
 - situation
 - argument
 - instance
19. How might the author of Passage 2 respond to the question posed in line 40, Passage 1 (“Do we . . . one”)?
- By agreeing that there is a pressing need to find a better alternative to both coal and nuclear energy
 - By pointing out that neither coal nor nuclear power can produce sufficient energy to meet our current needs
 - By arguing that not enough resources have been allocated to finding green energy alternatives
 - By insisting that coal has been unfairly maligned as an energy source
 - By asserting that nuclear power’s superiority to coal outweighs any such concern
20. The function of the opening paragraph of Passage 2 (lines 41-46) is to
- reflect on a nostalgic moment
 - allude to a pivotal event
 - trace the history of a place
 - question the soundness of a decision
 - warn of an unforeseen problem
21. The tone of lines 55-68, Passage 2, is best described as
- vehement
 - sanguine
 - resigned
 - flippant
 - caustic
22. The primary concern of Passage 2 is the
- difficulty of containing nuclear waste
 - risk of a disastrous nuclear accident
 - development of more energy-efficient appliances
 - use of an energy source that has a reduced environmental impact
 - expanded use of nuclear power as a temporary measure

2



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2

23. Both Passage 1 and Passage 2 emphasize the need to

- (A) employ better safety practices at nuclear plants
- (B) undertake more aggressive research on nuclear power
- (C) encourage Americans to curb their energy use
- (D) evaluate energy sources in terms of their potential negative impact
- (E) reduce annual expenses for nuclear power development

24. The concluding paragraph of each passage makes use of which technique?

- (A) Describing personal experiences
- (B) Invoking collective interests
- (C) Citing scholarly authority
- (D) Offering anecdotal commentary
- (E) Posing rhetorical questions

S T O P

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

SECTION 3

Time — 25 minutes

18 Questions

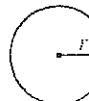
Turn to Section 3 (page 4) of your answer sheet to answer the questions in this section.

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

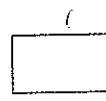
1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is 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

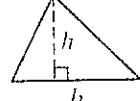


$$A = \pi r^2$$

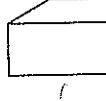
$$C = 2\pi r$$



$$A = l w$$



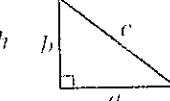
$$A = \frac{1}{2} b h$$



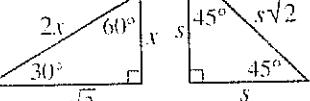
$$V = l w h$$



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



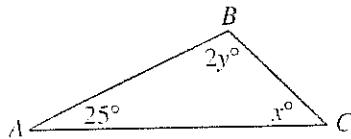
$$c^2 = a^2 + b^2$$



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. In $\triangle ABC$ above, $y = 55$. What is the value of x ?

- (A) 30
(B) 45
(C) 55
(D) 85
(E) 90

2. If $x = 2$ and y is 3 times x , then $4x$ is how much less than $2y$?

- (A) 2
(B) 3
(C) 4
(D) 6
(E) 8

GO ON TO THE NEXT PAGE

3

3

3

3

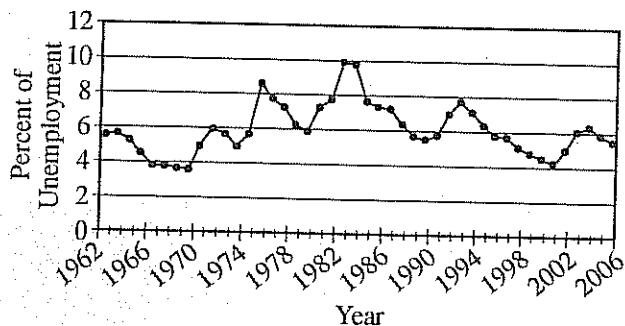
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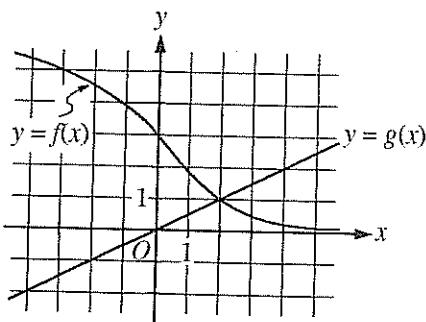
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3

PERCENT OF UNITED STATES LABOR
FORCE UNEMPLOYED BY YEAR



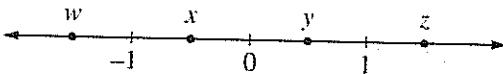
3. The graph above shows the percent of unemployment in the United States each year from 1962 to 2006. According to the graph, in how many of those years was the percent of unemployment greater than 8 percent?
- (A) None
(B) One
(C) Two
(D) Three
(E) Four



4. The graphs of the functions f and g are shown in the xy -plane above. For which of the following values of x does $f(x) = g(x)$?
- (A) 0
(B) 1
(C) 2
(D) 3
(E) 4

5. In the xy -plane, a circle with radius 5 has its center at $(0, 0)$ and a second circle, with radius 2, has its center at $(8, 0)$. If P can be any point on the first circle and Q can be any point on the second circle, what is the minimum possible distance from P to Q ?

- (A) 1
(B) 2
(C) 3
(D) 5
(E) 8



6. On the number line above, w , x , y , and z are the coordinates of the indicated points. Which of the following is NOT true?
- (A) $z - y > x$
(B) $y > xz$
(C) $wx > xy$
(D) $\frac{w}{x} > y$
(E) $\left(\frac{x}{w}\right)^2 > z$

3

3

3

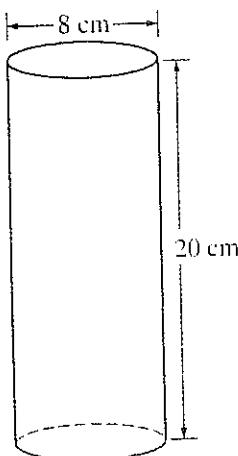
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3

3



7. The figure above represents a right circular cylinder made of paper. It has a height of 20 centimeters and a diameter of 8 centimeters, and it is open at both ends. Of the following, which is closest to the surface area, in square centimeters, of the outside of the paper cylinder?

- (A) 450
- (B) 475
- (C) 500
- (D) 525
- (E) 550

8. If $ab > 10^5$, then the value of $\frac{a + \frac{1}{b}}{5a}$ is closest to which of the following?

- (A) 0.1
- (B) 0.2
- (C) 0.3
- (D) 0.4
- (E) 0.5

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: $\frac{7}{12}$

Write answer → in boxes.

7	/	1	1	2
0	1	2	3	4
5	6	7	8	9

Grid in → result.

Answer: 2.5

Fraction line

2	.	5
0	1	2
1	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8
7	8	9

Decimal point

Answer: 201

Either position is correct.

2	0	1	2	0	1
0	1	2	3	4	5
1	2	3	4	5	6
2	3	4	5	6	7
3	4	5	6	7	8
4	5	6	7	8	9

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 $\frac{7}{2}$. (If $\boxed{3} \boxed{1} \boxed{/} \boxed{2}$ 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:

2	/	3	.	6	6	.	6	6	7
0	1	2	0	1	2	0	1	2	3
1	2	3	1	2	3	1	2	3	4
2	3	4	2	3	4	2	3	4	5
3	4	5	3	4	5	3	4	5	6
4	5	6	4	5	6	4	5	6	7
5	6	7	5	6	7	5	6	7	8
6	7	8	6	7	8	6	7	8	9

9. A total of 1000 pounds of candy is packaged into boxes, with each box containing $\frac{1}{2}$ pound of candy. If each box sells for \$2.00, what is the total selling price, in dollars, for all the boxes? (Disregard the \$ sign when gridding your answer.)

10. If $\frac{x+2}{10} = 40$ and $\frac{y+x}{20} = 40$, what is the value of y ?

3

3

3

3

3

3

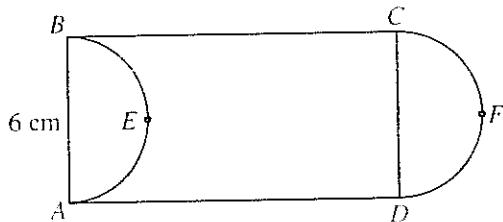
3

3

ATTENDANCE AT LAST MONDAY'S
AEROBICS CLASSES

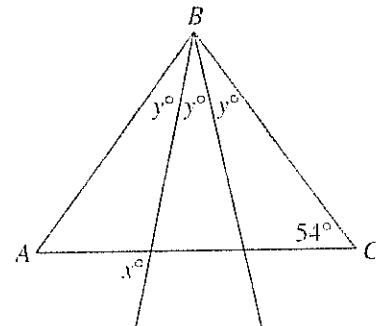
Class Time (A.M.)	Attendance
6:00	14
7:30	20
9:00	23
10:30	20
11:30	28

11. The table above shows the attendance at a health club's aerobics classes on Monday last week. The average (arithmetic mean) class attendance last Monday was 21. If the attendance at the 6:00 A.M. class next Monday increases by 5 and the attendance at the other classes remains the same, what will be the average attendance at next Monday's classes?



12. In the figure above, $ABCD$ is a rectangle with $BC = 2AB$. \overline{AB} and \overline{CD} are diameters of semicircles AEB and CFD . What is the area of the shaded region, in square centimeters?

13. In the xy -plane, the graph of $y = k(x - 1)^2$, where k is a constant, passes through the point $(3, 10)$. What is the value of k ?



14. In triangle ABC above, $AB = BC$. What is the value of x ?

3

3

3

3

3

3

3

3

15. Carol has 5 scarves and 5 sweaters, and each scarf matches a different sweater. If she chooses one of these scarves and one of these sweaters at random, what is the probability that they will not match?

17. If $-1 < 2y < 0$, what is one possible value of $|y| - y$?

18. The integer n is equal to k^2 for some integer k . If n is divisible by 24 and by 10, what is the smallest possible positive value of n ?

$$3^{6x} = 81a^2$$

16. In the equation above, x is a positive integer and $a > 0$. If $27^x = ka$, what is the value of k ?

S T O P

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



SECTION 5

Time — 25 minutes
24 Questions

Turn to Section 5 (page 5) 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. Some ecosystems are more ----- than others, better able to withstand changes, while other ecosystems are more ----- and therefore susceptible to the slightest alteration.
 (A) resilient . . vulnerable
 (B) stagnant . . dependent
 (C) fragile . . endangered
 (D) specialized . . fluid
 (E) robust . . ubiquitous
2. During decades of oppression, the people lost their will to resist and became -----, yielding readily to the government's demands.
 (A) resolute (B) isolated (C) compliant
 (D) cunning (E) fervid

3. Ryan's ----- bothered his friends, who tired of his instability and constant changes of allegiance.
 (A) blundering (B) exuberance (C) fickleness
 (D) naïveté (E) cocksureness
4. Hypatia of Alexandria, a noted mathematician in Roman Egypt who also taught philosophy and astronomy, championed -----, deliberately ----- the mystical thinking and occult practices prevalent during her times.
 (A) empiricism . . appropriating
 (B) rationalism . . eschewing
 (C) stoicism . . bolstering
 (D) spiritualism . . subverting
 (E) intellectualism . . inculcating
5. The mayor is renowned for her ----- temperament: she can be warm and talkative one moment, aloof and supercilious the next.
 (A) acrimonious (B) melancholy (C) mercurial
 (D) beguiling (E) officious

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

Questions 6-9 are based on the following passages.

Passage 1

The realm of blogging and other user-generated Web content, like personal home pages, has a Wild West, anything-can-happen feel to it. A guy who has never written a children's book goes from blogging, to networking, to causing a stir, and ends up with a book deal. A couple of women who find their conversations about dating incredibly amusing turn out to be right, and end up with a television deal from a major cable channel. While it is growing and changing more rapidly than anyone can accurately track, the world of blogging is still a place where anyone can stand out, make a splash, be seen, be heard, and be successful.

Line 5

10

15

20

Passage 2

A blog can seem like a waste of time to some, since there is no guarantee readers will come and comment. Maintaining it with new posts and an interesting layout can seem like a chore. Why does someone bother to create a blog if it isn't to peddle a product or to get in touch with consumers? "The principal reason to blog is because you have something to say," claims one expert on blogging. "While the cadre of readers may be small, it is not really how many sets of eyeballs are reading your material that's important, but who the eyeballs belong to. Blogs are written by influencers, and it is often other influencers that read them."

6. Unlike the author of Passage 1, the author of Passage 2 implies that keeping a blog might
 - (A) benefit the community
 - (B) require financial commitment
 - (C) involve irksome tasks
 - (D) attract favorable attention
 - (E) reward real creativity
7. The author of Passage 2 suggests that "some" (line 13) would most likely view the description in lines 10-12, Passage 1 ("the world . . . successful"), as
 - (A) surprisingly apt
 - (B) overly optimistic
 - (C) needlessly pedantic
 - (D) insufficiently detailed
 - (E) comically anachronistic
8. In response to the question of why a person might "bother to create a blog" (lines 16-17, Passage 2), the author of Passage 1 would most likely claim that blogging
 - (A) provides a chance to be noticed
 - (B) encourages vigorous debate
 - (C) promotes disciplined thinking
 - (D) eases feelings of solitude
 - (E) offers creative satisfaction
9. In the context of Passage 2, the quotation in lines 18-24 primarily serves to
 - (A) analyze a hypothesis
 - (B) account for a phenomenon
 - (C) advocate an action
 - (D) pose a question
 - (E) qualify a claim

Questions 10-15 are based on the following passage.

Published in 1986 by a prominent critic, the following passage is from an essay on modern literature and the arts.

Line Is there no way to recognize and reconcile the two
undeniable extremes of art: its urgent, realistic depiction
of human life and its retreat to a self-reflexive realm of lan-
guage, forms, and ideas? I can answer only with a parable.
5 Many years ago when I lived in Texas I was struck by a
type of side road fairly common along the highways of that
state. Called "loop roads" and assigned a state number, these
routes ran a few miles into the countryside, sometimes to a
homestead or small community, and returned to the high-
way at the same point or a little farther on, thus forming
10 a loop. They were neither dead ends nor connecting roads
to another highway. By taking one of these loop roads you
could explore the landscape, change your direction, break
your journey, and perhaps discover an impressive outlook or
landmark, knowing that you would return to your original
15 path after the detour. I sensed even then that such roads
would later furnish a compact analogy for something I
could not yet identify.

A work of art or literature removes us temporarily from
20 the regular path of our life and diverts us into a partly imag-
inary domain where we can encounter thoughts and feelings
that would not have occurred to us on the highway. These
side experiences differ from our daily lives. In literature
they are made up of words—disembodied, intense, complex,
25 wonderfully malleable, and convincing. These differences
permit a literary work to probe disturbingly deep into poten-
tial relations among character, action, thought, and the
natural world. We accept the differences and expect them
30 to observe or exceed certain conventions of plausibility and
exaggeration, usefulness and fantasy. At the same time we
know that this detour of art will deliver us back before long
into the track of our life, which may be changed or influ-
enced in some manner by the side trip.

This loop analogy presents a work of art as a form of
35 delay or relay along the path of living. Its processes are only
temporarily autonomous; they turn off from and return to the
realities of human existence. Humans have a great capacity
for delayed response, for foresight based on hindsight. Art-
ists and writers refine and develop this faculty by constantly
40 rehearsing real and imaginary events in order somehow to
get them right—in timing and tone. This process of paus-
ing to reflect, of rehearsing (both before and after the fact)
the consequences of our actions, has always inspired human
artistic creativity. Art is free to try all the genres and modes
45 it can imagine; some of them travel a long way from reality.
Its responsibility is to return us to reality better prepared to
continue our journey.

10. The tone of the passage might best be described as

- (A) openly critical
- (B) conversational and whimsical
- (C) nostalgic and uncertain
- (D) personal and reflective
- (E) cautiously argumentative

11. Which statement best describes the "extremes of art" discussed in lines 1-4 ?

- (A) Art can represent either the external concrete world or the somewhat abstract world of art itself.
- (B) Art can be seen as either realistic and human or overly self-conscious and decadent.
- (C) Art should not compromise its portrayal of life by using complex language.
- (D) Art makes the mundane appear more aesthetically appealing.
- (E) Any representation of life depends on the use of artistic means of expression.

12. As used in line 22, the "highway" represents

- (A) a short vacation
- (B) everyday experience
- (C) new information
- (D) an undiscovered path
- (E) an unplanned journey

13. As used in line 31, the idea of a "detour" represents

- (A) the fact that art can be a guide through life
- (B) the fact that art is intentionally misleading
- (C) the stylistic shift that inevitably occurs in any field of art
- (D) a work of art as both entertaining and relevant
- (E) a work of art as different from everyday life



14. Which of the following best exemplifies the “great capacity” (line 37) that the author describes?
- (A) A famous pianist who also learns to play the violin and the oboe
 - (B) A father who involves a group of rowdy children in building a sand castle on the beach
 - (C) A political candidate who publishes her memoirs to gain public exposure
 - (D) A painter who must adapt her style to popular taste to sell her work
 - (E) A lawyer who examines the strategy used in a previous case to help prepare for a future case

15. The passage is best described as a

- (A) refutation of the notion that art resembles a loop
- (B) discussion of the place of art in life
- (C) criticism of several common ideas about art
- (D) reminiscence about the author’s travels in Texas
- (E) reflection on the human capacity for artistic creativity



Questions 16-24 are based on the following passage.

This passage, adapted from a novel, is set at the fictitious Hedermansever College during the 1950s. The narrator and his new roommate, Bobby Dove, eventually become friends.

Line Tim and I had an argument and he went to live in another room, with consent of the dorm-master. When he left I went about being wanton. I took my mattress off the bed frame and slept with it on the floor. My phonograph was always wailing. I brushed my teeth once a day. On the back of my door was a picture of jazz great Maynard Ferguson, with his trumpet and wearing a purple sweater. Out of his mouth I had drawn a speech balloon enclosing the word "Practice!" All this 5 is what passed for being a beatnik¹ at Hedermansever. I'd already been thrown out of the student center twice for playing jazz with a few musical acquaintances. We drew 10 a crowd of kids itching to dance, but the student dean came in to tell us loud dance music wasn't the right thing at Hedermansever. This man held an office and received 15 a salary for such services. He showed up on such occasions as involved clandestine pleasure; showed up, a raving, red-faced symptom, wherever joy became too unconfined—in his natty orlon shirt and loafers and his Ivy League 20 crew cut and his failing youth, just one of the boys.

Two weeks went by before they threw in Bobby Dove to live with me. He took almost a week to truck in all the books and machinery that went along with him. His correct whole name was Robert Dove Fleece. He hadn't 25 made it with his roomie either. One thing I could see: he dragged in so much clutter that there wasn't really room for anybody else to live with him. Fleece said little to me the first week. Then one afternoon I walked in on him and he broke open.

"You're some counselor they've hired to live with me, aren't you?" I had interrupted his reading at the long plywood table he had for a desk.

"No, I'm not. I'm in music."

"Are you a genius?" Fleece asked me.

"No. I've never considered being a gen—"

"Just going to clog up the field of music, are you? I understand, I guess. I'd hoped we'd have some ideas transpiring around the room. I am a genius. I'm going to bring something forth, my brains are going to come up 40 with something." He caught me staring at him. "All right, rube², stare at me. I'm not Mister Muscle. Want to see me look like a puppet?" He stood up and formed himself into a slump which made him look exactly like a pale marionette out of work and hanging. Even sitting back down 45 to his chair, he seemed to be worked from above by some cynical puppeteer. "Did you notice that huge forehead I've

got, though?" He tapped it. Then he put his little finger in one ear and hooked it upwards lovingly: "Brains up there," he said.

50 "I've got ideas. I don't mean I don't have any ideas," I defended myself. "There is a lot of idea in music, you know. When I play the trumpet, for example—"

"No. I'm afraid that music is not idea. Music is instinct dignified by instruments or voice. Music is howling in tune. 55 The guts come first, and there is no disinterestedness, as in actual Idea."

"What would that be like?"

"Idea? An idea is something which exists already and does not care whether you like it or not. You probably haven't had any ideas, rube, not fonking away on a horn. Sorry, I have ideas, I live at the top of my brain. You look like somebody who's looking out his navel. Oh ho! You want to get me, don't you? You peer meanly at me! Oh yes, attack! Thinking I look like a limp dry pea-pod or the like, aren't you? Some sort of fragile herb with hair on its arms. Go ahead, have a blast at me. Easy stuff!"

"I wanted to get along," I said.

¹ a nonconformist

² an awkward, uncultivated person

16. Fleece behaves toward the narrator in a manner best described as

- (A) amiable
- (B) urbane
- (C) eccentric
- (D) apathetic
- (E) discreet

17. In line 12, "drew" most nearly means

- (A) extracted
- (B) represented
- (C) lengthened
- (D) attracted
- (E) formulated

18. In line 14, "right" most nearly means

- (A) proper
- (B) genuine
- (C) accurate
- (D) honest
- (E) just



19. Lines 15-20 ("This man . . . boys") primarily suggest that the student dean is a
- (A) skeptic
 - (B) killjoy
 - (C) figurehead
 - (D) puppet
 - (E) braggart
20. Fleece's question in lines 46-47 ("Did . . . though?") reflects his feelings of
- (A) pride
 - (B) compassion
 - (C) disillusionment
 - (D) uncertainty
 - (E) regret
21. In lines 55-59 ("The guts . . . not"), Fleece argues that ideas
- (A) presuppose an element of creativity
 - (B) are independent of human consciousness
 - (C) arise out of diligent application
 - (D) can be grasped instinctively
 - (E) are often complex in nature
22. In lines 59-62 ("You . . . navel"), Fleece's words are best characterized as a
- (A) pun
 - (B) taunt
 - (C) rebuttal
 - (D) parody
 - (E) digression
23. The passage as a whole suggests that Fleece's state of mind in lines 62-66 ("Oh . . . stuff!") is best described as
- (A) somber
 - (B) ambivalent
 - (C) depressed
 - (D) bewildered
 - (E) paranoid
24. The narrator's final remark primarily expresses a sense of
- (A) disappointment
 - (B) dedication
 - (C) repentance
 - (D) confidence
 - (E) malice

S T O P

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



SECTION 6

Time — 25 minutes

35 Questions

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

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

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

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

EXAMPLE:

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

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

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

1. While studying mutations in corn, biologist Barbara McClintock discovered that certain genes that were able to move their positions on chromosomes and control the activity of other genes.

- (A) that were able
- (B) that had been able
- (C) were able
- (D) able
- (E) to be able

2. Chrysanthemums, lilies, and crocuses are just three types of flowers grew in both European and Asian gardens.
 - (A) flowers grew
 - (B) flowers that grow
 - (C) flowers; their growth
 - (D) flowers, they grow them
 - (E) flowers, they are grown
3. Though the Savannah was the first steamship to cross the Atlantic Ocean, it relied on its sails, rather than its steam engine, for most of the voyage.
 - (A) it relied
 - (B) they relied
 - (C) but it relied
 - (D) but relying
 - (E) relying
4. Richard Axel and Linda B. Buck's research has demonstrated how receptors in the nose detect odors, how receptor cells send information to the brain, also the brain recognizes particular odors.
 - (A) also the brain recognizes particular odors
 - (B) and the brain recognizes particular odors
 - (C) and how the brain recognizes particular odors
 - (D) and how particular odors recognized by the brain
 - (E) then particular odors are recognized by the brain



5. After each of the architects have finished to present a plan for the building's renovation, the committee considered the proposals and made its decision.
- have finished to present
 - have finished presenting
 - has finished presenting
 - had finished to present
 - had finished presenting
6. The United States coal market was dominated by Appalachian coal for a century, which was first mined in the 1800s.
- The United States coal market was dominated by Appalachian coal for a century, which was first mined in the 1800s.
 - First mined in the 1800s was Appalachian coal, it dominated the United States coal market for a century.
 - First mined in the 1800s, Appalachian coal dominated the United States coal market for a century.
 - Appalachian coal, dominating the United States coal market for a century, first mined in the 1800s.
 - Appalachian coal being first mined in the 1800s and dominated the United States coal market for a century.
7. With its fast whirling of partners held as if in an embrace, many people were shocked by the waltz when it was introduced around 1800.
- embrace, many people were shocked by the waltz when it was introduced around 1800
 - embrace, around 1800, many people were shocked when the waltz was introduced
 - embrace, the waltz shocked many people when it was introduced around 1800
 - embrace, the introduction of the waltz, around 1800, shocked many people
 - embrace is why many people were shocked by the waltz when it was introduced around 1800

8. Cattle ranchers often view the prairie dog as pests, eating pasture grasses and digs holes that can injure cattle.

- pests, eating
- pests, they eat
- pests that eat
- a pest, although it eats
- a pest because it eats

9. Although one might think that contact lenses are a recent invention, but in fact were developed more than a century ago.

- but in fact were
- but they were in fact
- the fact being that they were
- they have in fact been
- they were in fact

10. By using a thimble to protect your finger from the needle, the thimble makes sewing easier.

- the thimble makes sewing easier
- you can sew more easily
- sewing is easier
- it can be sewn easier by you
- it improves the ease of sewing

11. Unlike several decades ago, today's librarians teach students to evaluate the accuracy and objectivity of online resources in addition to helping them find particular books.

- Unlike
- Unlike them of
- Unlike those of
- Contrary to
- Contrary to those



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

EXAMPLE:

The other delegates and him immediately
A B C

accepted the resolution drafted by the
D

neutral states. No error
E

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

12. The ancient Sumerians wrote on clay tablets.
A

which were either hardened to preserve the writing
B

and left unhardened so that they could be inscribed
C

again. No error
D E

13. Covering the roof of a building with heat-reflecting
A B

plants can dramatically reduce the cost of air-
C D

conditioning. No error
E

14. Elizabeth Bishop's unpublished manuscripts contain

many unfinished drafts; some she intended to rewrite,
A

but others she never meant to publish, having lay
B C D

them aside as mementoes of the past. No error
E

15. James Houston, whose glass sculptures often depict
A

Arctic scenes such as fishing or kayaking, drawing
B

his inspiration from Inuit stone carvings he saw
C D

while living on Baffin Island. No error
E

16. Studies of home remedies for mild burns have shown
A B

that honey has antibacterial and anti-inflammatory
C

properties that may promote healing. No error
D E

17. Production delays were notoriously difficult
A

obstacles to overcome until the company adopted
B C

new computer technology that works more effective
D

than the old technology. No error
E

5



18. Either a novel by Isaac Asimov or one by Arthur C.

Clarke are going to be discussed at the next
 A B C
meeting of the Science Fiction Book Club.
 D

No error
 E

19. Larger than the entire state of California, the
 A

Chihuahuan Desert is home to approximately
 B C
 1,000 plant species found nowhere else in the
 D

world. No error
 E

20. The shimmering appearance for which silk
 A

is prized comes from its fibers' prismlike structure,
 B

which allow silk cloth to refract incoming light
 C

at different angles. No error
 D E

21. The biography describes how, growing up in
 A B

a small house with six energetic siblings, Ellis

developed a high tolerance for mayhem and learns
 C D

to accommodate the needs of other people. No error
 E

22. Because cell phones are so widely used today, many
 A

movie theaters post signs warning that it is not
 B C D
 permitted during the movie. No error
 E

23. Featured in many New York City landmarks, the
 A

vaulted tile ceilings patented by Rafael Guastavino
 B

reflects the influence of Spanish architecture on his
 C D
 style. No error
 E

24. Although snowflakes come in an almost infinite
 A B

number of designs, its basic form is a six-pointed
 C D
 star. No error
 E

25. In recognition to her extraordinary contributions
 A B

to gospel music, in 1988 the National Endowment

for the Arts presented Willie Mae Ford Smith with
 C D

a National Heritage Award. No error
 E



26. Researchers have discovered that a fish,
A
like a human, processes some kinds of information
B C
 with the right side of its brain and other kinds with the
D
 left. No error
E

27. New Zealand had fostered a thriving local music
A
 scene for decades, but it was not until the late 1980s
B
when New Zealand musicians began to reach
C D
 international audiences. No error
E

28. Because neither of the dolls were in its original box,
A
 the pair would not be worth as much as the toy
B C
 collector had hoped. No error
D E

29. The figures cited in the report do not collaborate the
A
 author's claim that small hospitals generally provide
C
 better patient care than do large ones. No error
D 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) Should skateboarding be an Olympic event?
 (2) Many people do not believe it. (3) They object that skateboarding is too new a sport to be included in the Olympic Games. (4) Not only that, they claim that the sport's free-form style and antiestablishment culture are contrary to the Olympic spirit. (5) Skateboarding, they claim, is all about breaking rules, while the Olympics are all about playing by them.

(6) In the first place, skateboarding is not particularly new. (7) Its origins can be traced to the 1950s, when young surfers began riding through the streets of Southern California on flat pieces of wood to which they had attached steel roller-skate wheels. (8) Skateboarding is thus older than two current Olympic sports—snowboarding and BMX cycling—which were not developed until the 1960s. (9) All three of these sports have relatively high rates of injury.

(10) Moreover, skateboarding does not seem nearly as rebellious as it once did. (11) Countries and cities around the world have created government-approved skateboarding parks. (12) Skateboarding was becoming a phenomenon of popular culture, with people of all ages playing skateboarding video games at home and watching professional skateboarding competitions on television. (13) And, despite its reputation as a sport without rules, skateboarding has developed standard moves and tricks as well as accepted criteria for judging skill and performance.

(14) But there is a reason for including skateboarding events in the Olympics that has nothing to do with either how old or how accepted the sport is. (15) The International Olympic Committee wants to attract younger viewers to the Olympic telecasts. (16) It was this desire that prompted the committee to approve snowboarding for the 1998 Winter Games and BMX cycling for the 2008 Summer Games.



30. In context, which of the following is the best version of the underlined portion of sentence 2 (reproduced below) ?

Many people do not believe it.

- (A) (as it is now)
- (B) agree with them
- (C) think so
- (D) have an opinion
- (E) support this statement

31. Which sentence, if placed immediately before sentence 6, would best introduce the second paragraph and link it to the first?

- (A) People often feel threatened by innovation, and these critics are no different, of course.
- (B) Faced with these facts, supporters of Olympic skateboarding must adopt a different strategy.
- (C) Many skateboarders believe that there is more to a sport than just playing by the rules.
- (D) But perhaps the Olympics should make an exception for extreme sports like skateboarding.
- (E) None of these objections stands up to careful examination, however.

32. In context, which is the best version of the underlined part of sentence 10 (reproduced below) ?

Moreover, skateboarding does not seem nearly as rebellious as it once did.

- (A) (As it is now)
- (B) Hopefully, skateboarding
- (C) In other words, skateboarding
- (D) Skateboarding, for instance,
- (E) Skateboarding, by comparison,

33. In context, what is best to do with sentence 12 (reproduced below) ?

Skateboarding was becoming a phenomenon of popular culture, with people of all ages playing skateboard video games at home and watching professional skateboarding competitions on television.

- (A) Change "was becoming" to "has become".
- (B) Delete "of popular culture".
- (C) Delete "of all ages".
- (D) Insert "who were" before "playing".
- (E) Insert "mainstream" before "television".

34. Which of the following sentences, if inserted after sentence 16, would provide the best conclusion for the passage?

- (A) Like any other television production, telecasts of the Olympics make a lot of money from advertisers.
- (B) Given its considerable popularity among young people everywhere, skateboarding should likewise win the committee's approval in the near future.
- (C) Since these sports were also once considered too extreme for the Olympics, many people still feel that way about skateboarding.
- (D) Despite the persistent objections of its opponents, skateboarding has been around since the 1950s.
- (E) Because it requires high levels of skill, athleticism, and creativity, skateboarding requires that its practitioners be in surprisingly good physical condition.

35. Which of the following sentences should be deleted from the passage?

- (A) Sentence 1
- (B) Sentence 3
- (C) Sentence 4
- (D) Sentence 9
- (E) Sentence 14

S T O P

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

SECTION 7

Time — 25 minutes
20 Questions

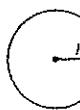
Turn to Section 7 (page 6) of your answer sheet to answer the questions in this section.

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

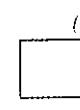
1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is 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

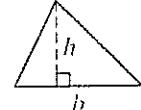


$$A = \pi r^2$$

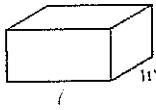
$$C = 2\pi r$$



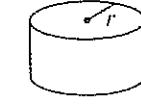
$$A = l w$$



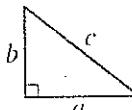
$$A = \frac{1}{2} b h$$



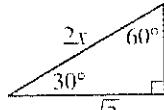
$$V = l w h$$



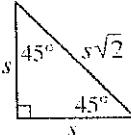
$$V = \pi r^2 h$$



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



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. In which of the following pairs do both numbers round to the same whole number?
 - (A) 4.2 and 4.8
 - (B) 4.4 and 4.6
 - (C) 4.6 and 5.6
 - (D) 4.8 and 5.1
 - (E) 5.1 and 5.6
2. Harriet took 48 minutes to ride her bike the distance from her house to the town library. If she rode at a constant rate, what fraction of the total distance did she ride in the first 12 minutes?
 - (A) $\frac{1}{4}$
 - (B) $\frac{1}{3}$
 - (C) $\frac{1}{2}$
 - (D) $\frac{2}{3}$
 - (E) $\frac{3}{4}$

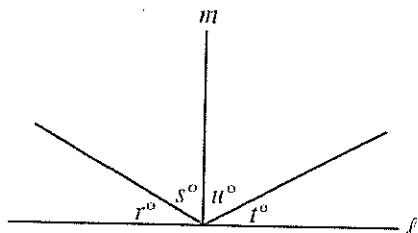
GO ON TO THE NEXT PAGE

3. If $3x + ky = -1$, $x = 3$, and $y = 5$, what is the value of k ?

(A) 2
 (B) $-\frac{1}{2}$
 (C) -1
 (D) $-\frac{8}{5}$
 (E) -2

5. A paper towel dispenser gives a 6-inch length of paper towel each time a sensor is activated. Which of the following functions d gives the total number of inches of paper towel dispensed in terms of n , the number of times the sensor is activated?

(A) $d(n) = \frac{n}{6}$
 (B) $d(n) = \frac{6}{n}$
 (C) $d(n) = 6n$
 (D) $d(n) = n + 6$
 (E) $d(n) = 6n + 6$



Note: Figure not drawn to scale.

4. In the figure above, $\ell \perp m$ and $r = t$. What is u in terms of s ?

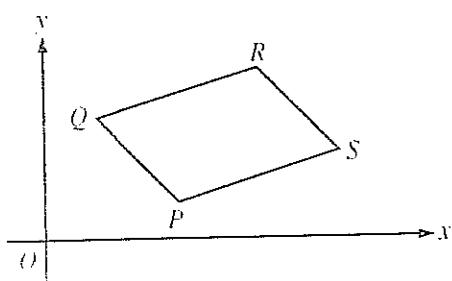
(A) $\frac{1}{2}s$
 (B) s
 (C) $2s$
 (D) $45 - \frac{1}{2}s$
 (E) $45 + \frac{1}{2}s$

$$A = \{1, 2, 3, 4\}$$

$$B = \{4, 5\}$$

6. If a represents an element from set A above and b represents an element from set B , what is the greatest possible value of $2a - b$?

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

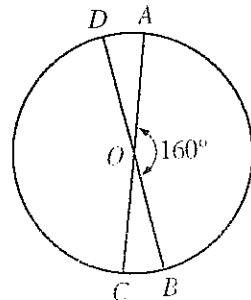


7. In the figure above, $PQRS$ is a parallelogram. What is the slope of \overline{PQ} minus the slope of \overline{RS} ?

(A) -1
 (B) $-\frac{1}{2}$
 (C) 0
 (D) $\frac{1}{2}$
 (E) 1

8. If $\sqrt{mp} = 4$, what is the value of $(mp)^2$?

(A) 2
 (B) 8
 (C) 16
 (D) 64
 (E) 256



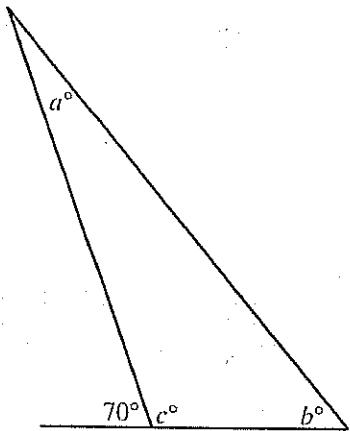
9. In the circle above, \overline{AC} and \overline{BD} are diameters.

The length of arc \widehat{AB} is how many times the length of arc \widehat{BC} ?

(A) 8
 (B) 9
 (C) 16
 (D) 17
 (E) 18

10. The median of a list of 101 consecutive integers is 86. What is the smallest integer in the list?

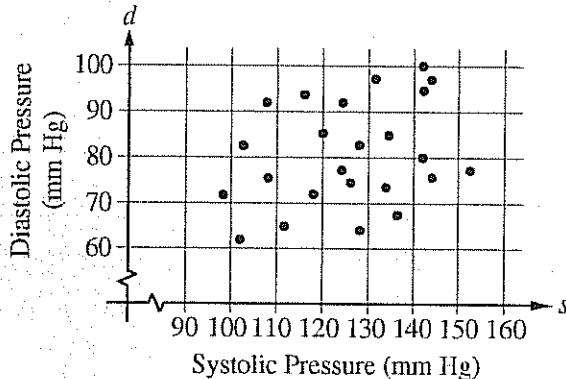
(A) 36
 (B) 37
 (C) 43
 (D) 50
 (E) 51



11. In the figure above, one side of a triangle is extended. Which of the following is true?

(A) $a = 70$
(B) $b = 70$
(C) $a + b = 70$
(D) $b - a = 70$
(E) $c = a + b$

SYSTOLIC VERSUS DIASTOLIC BLOOD PRESSURES FOR 24 PEOPLE



12. Each point in the scatterplot above represents a person's systolic and diastolic blood pressures. What fraction of the 24 people had either a systolic pressure over 140 millimeters of mercury (mm Hg) or a diastolic pressure over 90 mm Hg, or both?

(A) $\frac{1}{6}$
(B) $\frac{1}{4}$
(C) $\frac{1}{3}$
(D) $\frac{5}{12}$
(E) $\frac{1}{2}$

13. If y is 2 more than x , which of the following must be 4 more than x ?

(A) $y - 2$
(B) $y + 2$
(C) $y + 6$
(D) $2y$
(E) $\frac{y}{2}$

GO ON TO THE NEXT PAGE

- 7 [REDACTED] 7
14. Which of the following CANNOT be a polygon with perimeter 12 and sides that are of integer lengths?

(A) An equilateral triangle
(B) An isosceles right triangle
(C) A square
(D) A rectangle
(E) A parallelogram

16. At a school dance, Juan paid \$2.05 for 1 soda and 2 pretzels. Keisha paid \$1.85 for 1 pretzel and 2 sodas. What is the cost of 1 pretzel and 1 soda?

(A) \$1.05
(B) \$1.20
(C) \$1.25
(D) \$1.30
(E) \$1.35

-
15. Which of the following is the equation of a line in the xy -plane that is perpendicular to the line with equation $x = 2$?

(A) $x = -\frac{1}{2}$
(B) $x = -2$
(C) $y = 3$
(D) $y = -\frac{1}{2}x$
(E) $y = -2x$

17. What is the greatest total number of Mondays there could be in July and August of the same year? (July and August have 31 days each.)

(A) 6
(B) 7
(C) 8
(D) 9
(E) 10

18. If $s \neq 9$ and $\frac{s^2 - 81}{s - 9} = t^2$, what does s equal in terms of t ?

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

19. In a certain sequence, each term after the second is the product of the two preceding terms. For example, the third term is the product of the first and second terms, the fourth term is the product of the second and third terms, and so on. If the seventh term is 1,024 and the sixth term is 32, what is the first term of this sequence?

(A) 1,024
(B) 32
(C) 1
(D) $\frac{1}{32}$
(E) $\frac{1}{1,024}$

20. For all positive integers x , the function f is defined by

$f(x) = \left(\frac{1}{a^4}\right)^x$, where a is a constant greater than 1.

Which of the following is equivalent to $f(2x)$?

(A) $\frac{1}{2}f(x)$
(B) $2f(x)$
(C) $4f(x)$
(D) $(f(x))^2$
(E) $\sqrt{f(x)}$

S T O P

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



SECTION 8

Time — 20 minutes

16 Questions

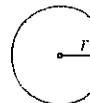
Turn to Section 8 (page 7) of your answer sheet to answer the questions in this section.

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

Notes

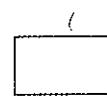
1. The use of a calculator is permitted.
2. All numbers used are real numbers.
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4. Unless otherwise specified, the domain of any function f is assumed to be the set of all real numbers x for which $f(x)$ is a real number.

Reference Information

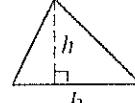


$$A = \pi r^2$$

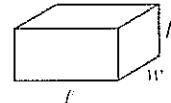
$$C = 2\pi r$$



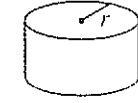
$$A = l w$$



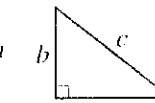
$$A = \frac{1}{2}bh$$



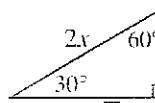
$$V = lwh$$



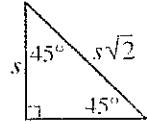
$$V = \pi r^2 h$$



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



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.

13, 9, 5, . . .

1. The first term of the sequence above is 13. Each term after the first is 4 less than the previous term. What is the first negative number in the sequence?
- (A) -1
 (B) -3
 (C) -4
 (D) -7
 (E) -8

2. If $2x + 1 = 3$, what is the value of $4x - 1$?

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

GO ON TO THE NEXT PAGE

5, x , y , z

3. If the sum of the 4 numbers listed above is 35, what is the average (arithmetic mean) of x , y , and z ?

(A) 5
(B) 10
(C) 15
(D) 20
(E) 30

5. If $r(t + u) = rt + w$, which of the following must be true?

(A) $ru = rw$
(B) $ru = tw$
(C) $rt = ru$
(D) $rt = w$
(E) $ru = w$

4. The cost of 48 pencils is d dollars. At this rate, what is the cost, in dollars, of 480 pencils?

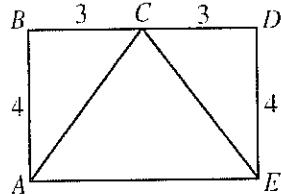
(A) $\frac{d}{10}$
(B) $\frac{10}{d}$
(C) $10d$
(D) $\frac{48}{d}$
(E) $48d$



x	$f(x)$	$g(x)$	$h(x)$
0	-1	10	11
1	3	2	5
2	5	7	-2
3	15	-11	3
4	-5	0	-4

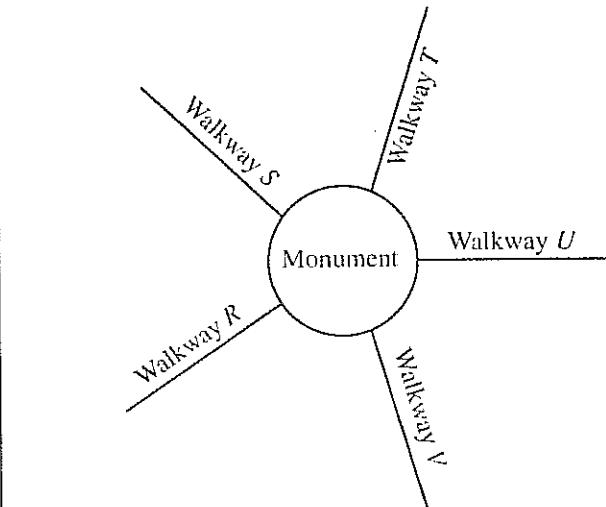
6. The table above gives some values of the functions f , g , and h . At which of the following values of x does $f(x) + h(x) = g(x)$?

(A) 0
 (B) 1
 (C) 2
 (D) 3
 (E) 4



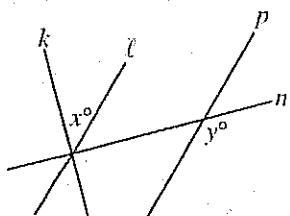
7. In the figure above, $ABDE$ is a rectangle. What is the perimeter of $\triangle ACE$?

(A) 11
 (B) 12
 (C) 14
 (D) 16
 (E) 20



8. The figure above shows 5 walkways, R , S , T , U , and V , leading to and from a monument. Carlos will take one walkway to the monument and will leave by a different walkway. From how many different pairs of these walkways can Carlos choose? (For example, the pair starting with walkway S and ending with walkway V is different from the pair starting with walkway V and ending with walkway S .)

(A) 10
 (B) 20
 (C) 25
 (D) 32
 (E) 50



Note: Figure not drawn to scale.

9. In the figure above, lines k and n are perpendicular and lines ℓ and p are parallel. If $x = 40$, what is the value of y ?

(A) 80
(B) 100
(C) 110
(D) 130
(E) 140

10. In a school election, Kevin, Marissa, and Joe were the only three candidates. Together the three candidates received a total of 348 votes. The combined number of votes that Kevin and Marissa received was 3 times the number of votes that Joe received. How many votes did Joe receive?

(A) 85
(B) 87
(C) 91
(D) 98
(E) 116

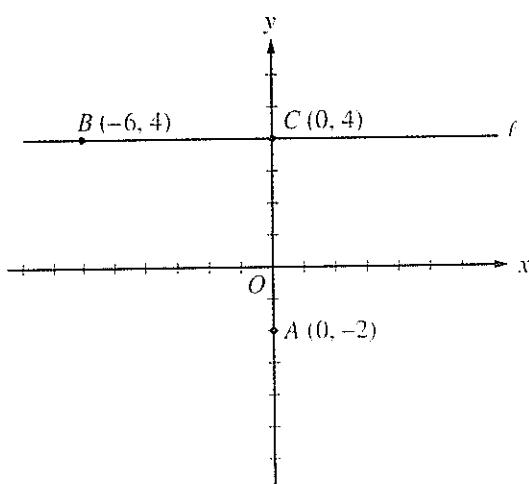
11. If x is an even integer, which of the following must be an odd integer?

I. $\frac{1}{2}x$

II. $2x$

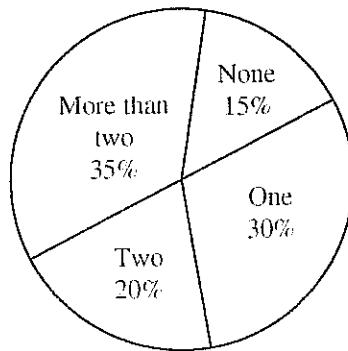
III. $3x$

(A) None
(B) I only
(C) II only
(D) III only
(E) I and III

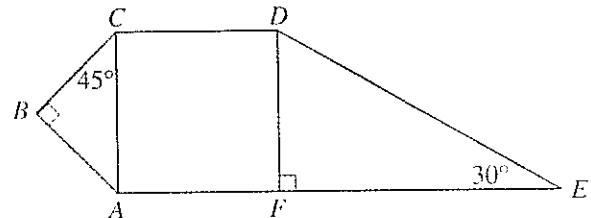


12. In the xy -plane above, point D (not shown) lies on line ℓ . If the slope of \overline{AD} is $-\frac{2}{3}$, what is the length of \overline{BD} ?
- (A) 2
(B) 3
(C) 9
(D) 10
(E) 15

NUMBER OF PETS OF 4TH GRADERS



13. The circle graph above shows the percent of 4th graders at an elementary school who have the indicated numbers of pets in their homes. If 68 of the 4th graders have at least one pet, how many have exactly two pets?
- (A) 16
(B) 17
(C) 20
(D) 33
(E) 34



14. In the figure above, $ACDF$ is a square, the area of $\triangle ABC$ is 12, and the length of segment \overline{DE} is $8\sqrt{3}$. What is the length of segment \overline{FE} ?
- (A) 10
(B) 12
(C) 14
(D) 16
(E) 18

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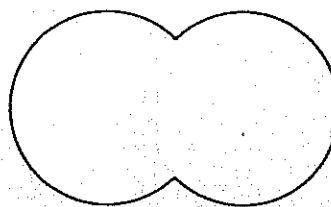
$$C(x) = \frac{10x}{101-x}$$

15. The function C above models the cost, in millions of dollars, of removing x percent of a certain pollutant from a region. If \$80 million is to be spent on the removal, what percent of the pollutant, to the nearest whole percent, will be removed?

(A) 90%
(B) 78%
(C) 60%
(D) 45%
(E) 38%

16. The figure above is made up of two identical 270-degree arcs. Each arc is part of a circle of radius 8. What is the area of the figure?

(A) 96π
(B) 128π
(C) $48\pi + 64$
(D) $96\pi + 32$
(E) $96\pi + 64$



STOP

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

**SECTION 9**

Time — 20 minutes

19 Questions

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

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

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

Example:

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

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

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

1. The proposed research projects were praised as both ----- and -----: they were inexpensive yet promised to break new ground.
 - (A) affordable . . redundant
 - (B) pointless . . revolutionary
 - (C) economical . . innovative
 - (D) suspect . . efficient
 - (E) worthwhile . . disturbing
2. As health care and nutrition continue to improve, Americans on average are enjoying increased -----, living to a more advanced age than ever before.
 - (A) equanimity (B) proximity (C) veracity
 - (D) longevity (E) ubiquity
3. The speaker ----- frequently, but these tangents were the most entertaining parts of the presentation.
 - (A) deliberated (B) gestured (C) exclaimed
 - (D) paused (E) digressed

4. Although she often described reason as the noblest -----, author Ayn Rand never implied that she rejected -----.
 - (A) enigma . . logic
 - (B) faculty . . emotion
 - (C) fantasy . . rhetoric
 - (D) good . . rationality
 - (E) honor . . semantics
5. The governor concluded that, because the city's fiscal problems were ----- by entrenched mismanagement, providing rescue funding would be foolhardy.
 - (A) supplanted (B) mitigated (C) ascertained
 - (D) exacerbated (E) assailed
6. Using fiber optics to deliver information initially seemed a ----- field of research, hard to understand by nonspecialists.
 - (A) substantive (B) fallacious (C) recondite
 - (D) pragmatic (E) hackneyed



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

Questions 7-19 are based on the following passage.

The following is adapted from the introduction to a 2003 biography of civil rights activist Ella Baker (1903–1986).

Ella Josephine Baker's activist career spanned from 1930 to 1980, touched thousands of lives, and contributed to over three dozen organizations. Baker spent her entire adult life trying to change a system that excluded poor Line 5 and oppressed people. Somewhere along the way she recognized that her goal was not a single "end" but rather an ongoing "means."

In 1969, Baker argued that

we are going to have to learn to think in radical terms. I use the term radical in its original meaning—getting down to and understanding the root cause. It means facing a system that does not lend itself to your needs and devising means by which you can change that system.

Radical change for Baker was about a protracted process of debate, consensus, and struggle. If larger numbers of communities were engaged in such a process, she reasoned, day in and day out, year after year, the revolution would 20 be well under way. Baker understood that laws, structures, and institutions had to change in order to correct injustice, but part of the process had to involve oppressed people, ordinary people, infusing new meanings into the concept of democracy and finding their own power to determine 25 their lives and shape the direction of history. Just as the "end" for her was not a scripted utopia but another phase of struggle, the "means" of getting there was not scripted either. Baker's theory of social change and political organizing was inscribed in her practice. Her ideas 30 were written in her work: a coherent body of lived text spanning nearly 60 years.

Biography is a profoundly personal genre of historical scholarship, and the humbling but empowering process of finding our own meanings in another person's life poses 35 unique challenges. As biographers, we ask questions about lives that the subjects themselves may never have asked outright and certainly did not consciously answer. Answers are always elusive. We search for them by carefully reading and interpreting fragmented messages left behind. Feminist 40 biographers and scholar-activists like me face particular challenges. It is imperative that we be very cautious of the danger inherent in our work: imposing our contemporary dilemmas and expectations on a generation of women who spoke a different language, moved at a different rhythm, 45 and juggled a different set of issues and concerns. The task of tailoring a life to fit a neat and cohesive narrative is a

daunting one: an awkward and sometimes uncomfortable process of wading barefoot into the still and often murky waters of someone else's life, interrogating her choices, speculating about her motives, mapping her movements, and weighing her every word. How can a biographer frame a unique life, rendering it full-bodied, textured, even contradictory, yet still accessible for those who want to step inside and look around?

Line 55 My journey into Ella Baker's world has been a personal, political, and intellectual journey, often joyous and at times painful. In the process, I have revisited the faces, experiences, and southern roots of my own mother, father, grandparents, aunts, uncles, and cousins: Mississippi sharecroppers, domestic and factory workers, honest, generous, hardworking, resilient Black people. Most importantly, I have developed an intense and unique relationship with my subject. I have chatted, argued, commiserated, and rejoiced with Ella Baker in an ongoing conversation between sisters, one living and one dead.

60 There are those who insist that biographical writing is compromised and tainted by an author's identification and closeness with her subject. This does not have to be the case. I do not apologize for my admiration for Baker. She earned it. I admire her for the courageous and remarkable life she led and for the contributions she made without any promise of immediate reward. I admire her for the ways in which she redefined the meaning of radical and engaged intellectual work, of cross-class and interracial organizing, 65 and of a democratic and humanistic way of being in the world, all the while trying to mold the world around her into something better.

70 I first came upon Baker's story through my search for political role models, not research subjects. I was drawn to the example of Ella Baker as a woman who fought militantly but democratically for a better world and who fought simultaneously for her own right to play more than a circumscribed role in that world. So, my first connection to Ella Baker was a political one. This connection has 75 enhanced rather than lessened my desire to be thorough and balanced in my treatment of her life and ideas. There is more at stake in exploring her story than an interesting intellectual exercise or even the worthy act of writing a corrective history that adds a previously muted, Black, female voice to the chorus of people from the past. To understand Baker's weaknesses as well as her strengths, her failures as well as her triumphs, her confusion as well as her clarity is to pay her the greatest honor I can imagine.



7. The passage most extensively discusses Baker's
- writings
 - personality
 - family background
 - political philosophy
 - view of history
8. The primary purpose of the first paragraph (lines 1-7) is to
- lament the obscurity of a scholar
 - highlight a controversial career
 - propose a line of argument
 - challenge a leader's reputation
 - introduce an influential figure
9. Lines 9-15 ("we . . . system") serve primarily to
- criticize an opposing view
 - call for an alternative approach
 - offer a hypothetical proposal
 - dispute a popular misconception
 - acknowledge a potential objection
10. According to lines 16-25 ("Radical . . . history"), Baker thought that positive social change would come about only if
- charismatic leaders inspired politicians to act
 - publicized injustices provoked widespread outrage
 - marginalized people took part in political activity
 - economic conditions made such change desirable
 - historical examples emboldened contemporary activists
11. In lines 37-39 ("Answers . . . behind"), the role of the biographer is presented in terms that most closely evoke the activity of
- a surgeon
 - a spy
 - a gambler
 - an artist
 - an archaeologist
12. Lines 41-45 ("It is . . . concerns") primarily serve as an example of which of the following?
- Self-admonition
 - Rousing oratory
 - Brainstorming
 - Understatement
 - Digression
13. In line 46, "tailoring" most nearly means
- embellishing
 - measuring
 - shaping
 - delving into
 - taking in
14. The imagery in lines 48-49 ("wading . . . life") evokes primarily which experience?
- The luxurious sensation of inhabiting the past
 - The exhilaration of conquering a challenge
 - Humility in the presence of a great personage
 - Apprehensiveness in confronting the unknown
 - Anxiety over whether one's work will achieve acclaim
15. In line 51, "weighing" most nearly means
- apportioning
 - burdening
 - counting
 - considering carefully
 - ascertaining the heaviness of
16. In lines 66-70 ("There . . . it"), the author claims to be
- full of charity
 - lacking discipline
 - without regret
 - envious
 - overjoyed
17. In the final paragraph, the author suggests that she became interested in Baker initially because
- she possesses political values and goals similar to Baker's
 - she enjoys the challenge of telling the stories of complex lives
 - other Baker biographies were not comprehensive enough
 - Baker had urged her to take on the project as a political act
 - Baker's autobiographical writings needed to be updated and expanded



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any part of this page is illegal.



18. In line 86, "treatment" most nearly means

- (A) execution
- (B) proposal
- (C) practice
- (D) management
- (E) handling

19. The author indicates in lines 86-93 ("There . . . imagine") that she is ultimately most concerned with conveying which aspect of Baker?

- (A) Her political activism
- (B) Her human complexity
- (C) Her fierce tenacity
- (D) Her carefree nature
- (E) Her remarkable candor

S T O P

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



SECTION 10

Time — 10 minutes
14 Questions

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

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

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

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

EXAMPLE:

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

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

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

1. In 1911 the Great Blue Norther, a massive storm in the midwestern United States, it caused temperatures in some cities to drop more than 60 degrees in a single day.

- (A) it caused
- (B) caused
- (C) causing
- (D) which caused
- (E) having caused

2. The Galápagos Islands originated when sections of Earth's crust passed over volcanic hot spots, molten lava erupted through those sections, and the lava has cooled to form new landmasses.
- (A) has cooled to form
 - (B) will cool, forming
 - (C) cooled to form
 - (D) cools and forms
 - (E) cools, forming
3. Playing an instrument such as the violin or the piano is a complex activity, it involves the use of several different parts of the brain.
- (A) activity, it involves
 - (B) activity, with it involving
 - (C) activity, which it involves
 - (D) activity that involves
 - (E) activity and involving
4. The final match of the 2006 FIFA World Cup was the most widely viewed sporting event of that year, with an estimated television audience of 715.1 million people worldwide.
- (A) with an estimated television audience of 715.1 million people
 - (B) the estimated television audience was 715.1 million people
 - (C) it was watched by an estimated television audience of 715.1 million people
 - (D) and they estimated that 715.1 million people watched it on television
 - (E) when an estimated 715.1 million people watching on television



5. The ballet company's directors turned down Smith's offer of a huge donation because Smith wanted to control the company not only financially but also will be a decision maker in artistic matters.
- (A) to control the company not only financially but also will be a decision maker in artistic matters
(B) controlling the company financially but also be an artistic decision maker
(C) control of the company not only in financial matters and also artistic
(D) financial control of the company as well as artistically
(E) not only financial but also artistic control of the company
6. Forgetting to substitute American for British spellings when the editor edited the article, the word "realise" was not changed to "realize."
- (A) Forgetting to substitute American for British spellings when the editor edited the article
(B) Because the editor of the article forgot to substitute American for British spellings
(C) Because of forgetting to substitute American for British spellings when editing the article
(D) To forget to substitute American for British spellings when editing the article
(E) Having forgotten to substitute American for British spellings when editing the article
7. In 1933 a group of film actors founded the Screen Actors Guild, a labor union that negotiates fair contracts for actors, in addition protects their legal rights.
- (A) actors, in addition protects
(B) actors, it also protects
(C) actors and to protect
(D) actors and protects
(E) actors; which protects
8. Whereas today's censuses estimate the total population of a region, in ancient times it was conducted for other purposes, such as identifying who should pay taxes.
- (A) in ancient times it was conducted
(B) but in ancient times they were conducted
(C) conducting censuses was done in ancient times
(D) censuses in ancient times were conducted
(E) censuses conducted in ancient times
9. A wiki is a Web site that uses simple software designed to allow the site's content be altered or changed by anyone who has access.
- (A) be altered or changed
(B) to be altered or be changed
(C) to be altered
(D) be changed
(E) being changed
10. Despite their many differences in size and appearance, but every domestic dog breed belongs to the same species and are extremely similar in genetic makeup.
- (A) but every domestic dog breed belongs
(B) but all domestic dog breeds belong
(C) every domestic dog breed belongs
(D) all domestic dog breeds belong
(E) domestic dog breeds all belonging



11. The largest city public library in the United States, the New York Public Library contains over 10 million books and 10 million manuscripts.
- (A) States, the New York Public Library contains
(B) States, it is the New York Public Library that contains
(C) States, contained in the New York Public Library is
(D) States is the New York Public Library, contained in it there is
(E) States that is the New York Public Library: it contains
12. Though the communications company offers high-speed Internet service, they charge exorbitant rates and customers complain about long delays for technical support.
- (A) they charge exorbitant rates
(B) they charge rates that are exorbitant
(C) exorbitant rates are charged by them
(D) the rates it charges being exorbitant
(E) it charges exorbitant rates
13. Originally built as a church, later converted to a mosque, and now used as a museum, Hagia Sophia, in Istanbul, Turkey, is one of the greatest surviving examples of Byzantine architecture.
- (A) later converted to a mosque, and
(B) later converted to a mosque and is
(C) was later converted to a mosque, and
(D) was later converted to a mosque and is
(E) it was later converted to a mosque and is
14. Having lived in Paris for six years, Martha's fluency in French is not surprising.
- (A) Martha's fluency in French is not surprising
(B) Martha's being fluent in French is not surprising
(C) Martha's French is, not surprisingly, fluent
(D) Martha, whose fluency in French is not surprising
(E) Martha is, not surprisingly, fluent in French

S T O P

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

Correct Answers and Difficulty Levels Form Codes AEUV, BWUV

Critical Reading

Section 2

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

Section 5

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

Section 9

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

Number correct

Number correct

Number correct

Number incorrect

Number incorrect

Number incorrect

Mathematics

Section 3

Multiple-Choice Questions		Student-Produced Response Questions	
COR. DIFF.	ANS. LEV.	COR. DIFF.	ANS. LEV.
1. B 1	9. 4000	1. D 1	11. C 3
2. C 2	10. 402	2. A 1	12. D 3
3. D 1	11. 22	3. E 1	13. B 3
4. C 2	12. 72	4. B 2	14. B 3
5. A 3	13. 5/2 or 2.5	5. C 1	15. C 4
6. E 3	14. 78	6. D 2	16. D 3
7. C 4	15. 4/5 or .8	7. C 2	17. D 4
8. B 4	16. 9	8. E 2	18. E 4
	17. 0 < x < 1	9. A 2	19. A 5
	18. 3600	10. A 3	20. D 5

Number correct

Number correct
(9-18)

Number correct

Number correct

Number incorrect

Number incorrect

Number incorrect

Section 7

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

Section 8

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

Writing Multiple-Choice

Section 6

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

Section 10

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

Number correct

Number correct

Number incorrect

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:

$$37 - 28 \left(\frac{1}{4}\right) = 37 - 7 = 30$$

- 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 51, 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 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 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 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 AEUW, BWUV

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 2: Questions 1–24 _____

Section 5: Questions 1–24 + _____

Section 9: Questions 1–19 + _____

Total = _____ (A)

How many critical reading questions did you get wrong?

Section 2: Questions 1–24 _____

Section 5: Questions 1–24 + _____

Section 9: Questions 1–19 + _____

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 53 to find your critical reading scaled score.

Get Your Mathematics Score

How many mathematics questions did you get right?

Section 3: Questions 1–18 _____

Section 7: Questions 1–20 + _____

Section 8: Questions 1–16 + _____

Total = _____ (A)

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

Section 3: Questions 1–8 _____

Section 7: 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 53 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 53 to find your writing multiple-choice scaled score.

Copy your essay score from your QAS report.

_____ (D)

Use the appropriate writing composite table (pages 54–55) 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 AEUV, BWUV

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	490	540	54
66	800			30	480	530	53
65	800			29	480	520	52
64	800			28	470	510	51
63	790			27	460	500	50
62	780			26	460	500	49
61	760			25	450	490	49
60	740			24	440	480	48
59	730			23	440	470	47
58	720			22	430	470	46
57	700			21	430	460	45
56	690			20	420	450	44
55	680			19	410	440	43
54	670	800		18	410	440	42
53	660	780		17	400	430	42
52	650	750		16	390	420	41
51	640	730		15	390	410	40
50	630	720		14	380	400	39
49	620	700	80	13	370	400	38
48	620	690	77	12	370	390	37
47	610	680	74	11	360	380	36
46	600	670	72	10	350	370	36
45	590	660	70	9	340	360	35
44	580	650	68	8	340	350	34
43	580	640	67	7	330	340	33
42	570	630	66	6	320	330	32
41	560	620	64	5	310	310	31
40	550	610	63	4	290	300	30
39	550	600	62	3	280	290	28
38	540	600	61	2	270	270	27
37	530	590	60	1	250	250	25
36	520	580	59	0	230	230	24
35	520	570	58	-1	210	210	22
34	510	560	57	-2	200	200	20
33	500	550	56	and below			
32	500	540	55				

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

SAT Writing Composite Score Conversion Table
Form Code AEUV

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

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

SAT Writing Composite Score Conversion Table
Form Code BWUV

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

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