

Form Codes AETV, BWTV

CollegeBoard

# The SAT®

## Question and Answer Service

### October 2010 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 2010, 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 [www.collegeboard.com/mysat](http://www.collegeboard.com/mysat). This can help you understand your academic strengths and identify areas for improvement.

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

## Reviewing Your Essay

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

## Scoring Your Test

Use the Scoring Worksheet, SAT Essay Scoring Guide and score conversion tables at the back of this booklet to 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

The best way to prepare for the SAT is to take challenging high school classes, read extensively and practice writing as often as possible. Also check out the College Board's free and affordable practice tools for the SAT, such as The Official Question of the Day™, and be sure to visit SAT Skills Insight™ at [www.collegeboard.com/satskillsinsight](http://www.collegeboard.com/satskillsinsight). It provides you with the types of skills that are tested on the SAT, suggestions for improvement and sample SAT questions and answers to help you do better in the classroom, on the test and in college. When you are ready, you can register to take the SAT again at [www.collegeboard.com/mysat](http://www.collegeboard.com/mysat).

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.

## 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.

Why do we not value the creative arts more than we do? Why are subjects like music, drama, photography, and creative writing always the first to be cut from school budgets during hard times? Many would answer that, unlike math, science, history, and other subjects taught in school, the arts are unnecessary. But this is so untrue. The arts are as necessary as these other subject areas—possibly even more necessary.

**Assignment:** Is it absolutely necessary for people to study the creative arts? 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.**

## ESSAY

**Time — 25 minutes**

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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.

I spent some part of every year at the farm until I was twelve or thirteen years old. The life that I led there was full of charm and so is the memory of it yet. I can call back the faint odors of wildflowers, the sheen of rain-washed foliage, the clatter of raindrops when the wind shook the trees, and the far-off hammering of woodpeckers. I can call back the prairie—and its loneliness and peace.

Adapted from Mark Twain, *My Autobiography*

**Assignment:** Is it important for people to spend time outdoors and to learn to appreciate their natural environment? 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.**

**ESSAY**  
**Time — 25 minutes**

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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.

In some circumstances we are encouraged to conform—to follow others, to do and think what everyone else is doing and thinking. In other circumstances, however, we are told to be individuals and are reminded that most people we consider great are not afraid to be different. Conformity may be appropriate in day-to-day life, but we should save our highest praise for people who choose to be unique.

**Assignment:** Should originality always be more highly praised than conformity? 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.**

**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.

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- **A pencil is required for the essay.** An essay written in ink will receive a score of zero.
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- **An off-topic essay will receive a score of zero.**
- **If your essay does not reflect your original and individual work, your test scores may be canceled.**

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

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

Some people say, “When in Rome, do as the Romans do,” meaning that when you are in a new culture, place, or setting, it is best to change your behavior to adapt to the rules and customs of your new surroundings. But does that old saying still apply in today’s world? Isn’t the world better off when people facing a change—whether it is a transfer to a new school, the start of a new job, or travel to a foreign country—retain their individuality and way of life instead of changing?

**Assignment:** Should people adapt to their new surroundings, or should they refuse to change? 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

Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

- No space was ----- inside the spaceship: there was nothing in it that did not serve an important function.  
 (A) occupied (B) wasted (C) modern  
 (D) unfamiliar (E) uncomfortable
- Long after the day's catch had been brought ashore, the smell of fish still ----- the air.  
 (A) rarified (B) purified (C) illuminated  
 (D) motivated (E) permeated
- Certain museum antiquities are of questionable legal status, tainted by histories of bribery, thievery, and other ----- activities.  
 (A) illicit (B) provincial (C) fabricated  
 (D) provocative (E) sovereign

- The shrewd dictator publicized the prosperity of one small village in order to ----- the ----- of the economic hardships that plagued most of his country.  
 (A) announce . . encroachment  
 (B) corroborate . . resurgence  
 (C) derail . . instability  
 (D) downplay . . magnitude  
 (E) expedite . . proliferation
- With his unlaundered shirt and his wrinkled suit, Ted appeared -----.  
 (A) belligerent (B) slovenly (C) casual  
 (D) gracious (E) fervent
- The estranged friends attempted -----, but their deep-seated ----- made the resumption of cordial relations impossible.  
 (A) a mollification . . credulity  
 (B) a reallocation . . reciprocity  
 (C) a reconciliation . . enmity  
 (D) a disputation . . antipathy  
 (E) an appeasement . . veracity
- Ramona practiced ceaselessly, but even such ----- efforts could not compensate for the poor performance of her teammates.  
 (A) precocious (B) dilatory (C) perfunctory  
 (D) clandestine (E) unremitting
- Although -----, nearly self-effacing, in her personal affairs, the journalist displays in her articles and columns an overriding ----- publicity and controversy.  
 (A) charismatic . . fascination with  
 (B) monotonous . . disdain for  
 (C) diffident . . aversion toward  
 (D) retiring . . penchant for  
 (E) elusive . . indifference toward



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

**Questions 9–10 are based on the following passage.**

Line

5

10

David Canaan had lived in Entremont all his thirty years. As far back as childhood, whenever anger had disheveled him, or confusion, or the tick, tick, tick of emptiness like he felt today, he had sought the log road that went to the top of the mountain. As he moved along this road, somewhere the twist of anger would loosen; a shaft of clarity would strike through the scud of confusion; blood would creep back into the pulse and pallor of the emptiness. He would take happiness there, to be alone with it, as another child might keep hidden for a day a toy that wasn't his.

9. The passage suggests that for David Canaan, the log road is best characterized as which of the following?

(A) An antidote  
 (B) A mystery  
 (C) A stimulant  
 (D) An illusion  
 (E) A contradiction

10. The simile in the last sentence suggests that David Canaan

(A) recognized that his happiness was not real  
 (B) sensed that his happiness would not last  
 (C) could feel happy only when he was alone  
 (D) had been happiest when he was a small child  
 (E) thought that no one else had experienced this feeling

**Question 11 is based on the following passage.**

“You can lose a country, but no one can take away your education,” my mother reassured me. “You will have the best education in America.” Years after our migration from Vietnam to Virginia, that was the hook I used to talk my mother into my idea of college. Every serious student in America embarked on a four-year quest, to be taught by a master teacher at a college far away from home, I explained. It was the equivalent of a martial artist’s leaving her village to study kung fu at the Shaolin Temple, I would say. And although she did not do it with grace, she believed me.

11. The mother’s statement in lines 2–3 (“You will . . . America”) is best characterized as a

(A) warning  
 (B) lament  
 (C) concession  
 (D) compliment  
 (E) conviction



Questions 12-24 are based on the following passages.

*These passages discuss Pleistocene rewilding: replacing the large mammals of North America that became extinct during the Pleistocene epoch with African or Asian relatives of those animals.*

#### Passage 1

Humans probably were responsible to some degree for late Pleistocene extinctions of large mammals in North America and elsewhere. Our subsequent activities have curtailed survival prospects and evolutionary potential for most large vertebrates. For these reasons, as well as for the sake of future human generations and Earth's plants and animals, citizens and scientists bear an ethical responsibility to vigorously redress these problems through Pleistocene rewilding of North America.

Pleistocene rewilding is not a substitute for ongoing conservation projects in Africa or North America. Instead, it centers on restoring ecological function to North America, where the evolutionary potential of many large animals was stopped 13,000 years ago and where ecosystems have struggled in the absence of their former members. (The extinction of predators like the American cheetah, for instance, means that a crucial link in the food chain is broken.) It is also a bold attempt to preserve the evolutionary potential of endangered African and Asian animals. In doing so, we hope to transform conservation biology, which is currently too easily characterized as a doom-and-gloom discipline because we merely expose and try to slow the rate of biodiversity loss. This characterization may discourage people from taking an interest in conservation. Pleistocene rewilding represents an exciting move away from managing extinction and toward restoring ecological and evolutionary processes by using the past as a guide.

In the coming century, we will decide, by default or design, how much humanity will tolerate other species and thus decide the future of biodiversity. The default scenario will surely include ever more landscapes dominated by pests and weeds, the global extinction of more large vertebrates, and a continuing struggle to slow the loss of biodiversity. While sound science can help mitigate the risks of Pleistocene rewilding, the potential for unexpected consequences will worry many conservationists. Yet given the apparent dysfunction of North American ecosystems and Earth's overall state, there are likely significant risks of inaction as well.

We ask those who object to Pleistocene rewilding: Are you content with the defeatist attitude of our current conservation philosophy? Are you content that your descendants might well live in a world devoid of large animals? Are you willing to settle for an American wilderness that is severely impoverished relative to just 100 centuries ago? Although the obstacles to Pleistocene rewilding are substantial and the risks are not trivial, we can no longer accept a hands-off approach to wilderness

- 50 preservation as realistic, defensible, or cost free. It is time not only to save wild places but also to rewild and reinvigorate them.

#### Passage 2

We all remember *Jurassic Park*, the fictional account of rewilding an isolated island with extinct dinosaurs

- 55 re-created from ancient DNA. Pleistocene rewilding of North America is a proposal only slightly less sensational. It is a little like proposing that two wrongs somehow will make a right. The modern-day proxy species—African elephants in place of American mammoths, etc.,—are 60 “wrong” (that is, different genetically from the species that occurred in North America during the Pleistocene epoch), and the ecosystems into which they are to be reintroduced are “wrong” (that is, different in composition from Pleistocene ecosystems as well as from those in which the 65 modern-day proxy species evolved). Pleistocene rewilding will not restore evolutionary potential to North America’s extinct animals, because the species in question are evolutionarily distinct, nor will it restore the ecological potential of North America’s modern ecosystems, because 70 they have continued to evolve over the past 13,000 years. In addition, there is a third and potentially greater “wrong” proposed: adding these exotic species could potentially devastate populations of indigenous animals and plants.

- Although it is argued that Pleistocene rewilding of 75 North America is justified for ecological, evolutionary, economic, aesthetic, and ethical reasons, there are clearly numerous ecological and evolutionary concerns. Yes, the plan might help conserve and maintain the evolutionary potential of some endangered African and Asian animals. 80 But it cannot restore the evolutionary potential of extinct species, and it may irreparably disrupt current ecosystems. Moreover, there are many potential practical limitations to this plan. Reintroduced camels did not survive for long in the deserts of the American West. Could African mammals, 85 especially large carnivores, really populate the same areas? Would elephants survive the harsh prairie winters, lacking the thick coats of their American mammoth ancestors?

- Answering these questions and accomplishing Pleistocene rewilding of North America would require a 90 massive effort and infusion of funds and could take more time to test experimentally than some of these critically endangered species have left to survive in their existing native habitats. If financial and physical resources were available on this scale, they would be better spent on 95 developing new ways to manage and conserve existing populations of African, Asian, and North American wildlife in their native habitats; on conducting ecological, behavioral, and demographic studies of these organisms in the environments in which they evolved; and on educating 100 each continent’s inhabitants about the wonders of their own dwindling flora and fauna.



12. The primary purpose of both passages is to
- discredit the validity of a project
  - take a position on a potential plan of action
  - clarify a series of misconceptions
  - defend a widely held point of view
  - analyze the significance of a particular event
13. In lines 1-9, the author of Passage 1 indicates that Pleistocene rewilding of North America is an “ethical responsibility” in part because
- scientists have the knowledge and skills needed to accomplish the project
  - scientists have diminished some species’ prospects for survival by conducting unsafe experiments
  - scientists did not foresee the destruction of North American habitats
  - humans likely had a role in the late Pleistocene extinctions
  - humans depend on animals for their own survival as a species
14. Both the American cheetah mentioned in lines 16-17, Passage 1, and the American mammoth mentioned in line 59, Passage 2, are examples of
- native species that have become extinct
  - native species that would be good candidates for rewilding
  - proxy species that had difficulty adapting to new habitats
  - creatures that were able to survive harsh winters
  - predators that were important links in the food chain
15. Lines 20-28 (“In doing . . . guide”) suggest that conservation biology has
- done more harm than good
  - tried and failed at Pleistocene rewilding
  - focused on coping with existing problems without finding a real solution
  - concentrated solely on predicting future extinctions
  - caused scientists to seek creative approaches from other fields
16. The author of Passage 1 characterizes the “default scenario” in lines 31-35 as
- creative
  - inevitable
  - tolerable
  - unlikely
  - undesirable
17. The author of Passage 2 would most likely characterize the concern of the “many conservationists” (line 37, Passage 1) as
- universal
  - well-founded
  - sentimental
  - diminishing
  - alarmist
18. In discussing various “wrongs” (lines 57-73), the author of Passage 2 indicates that the most serious one is the
- risk that proxy species would severely damage existing ecological communities
  - probability that proxy species would fail to survive because they evolved in different ecosystems
  - fact that proxy species are less adaptable than their extinct counterparts were
  - menace that certain proxy species would pose to other proxy species
  - concern that proxy species would return existing ecosystems to a state similar to that of the Pleistocene epoch
19. In line 68, “distinct” most nearly means
- recognizable
  - strange
  - notable
  - different
  - clear
20. In lines 77-79 (“Yes . . . animals”), the author of Passage 2 responds to issues raised in Passage 1 by
- conceding a point in preparation for a rebuttal
  - summarizing the shortcomings of a proposal
  - objecting strenuously to an idea
  - clarifying a complicated issue
  - offering constructive advice
21. In lines 83-84, the author uses the example of “Reintroduced camels” to suggest that
- camels in particular were a poor choice for rewilding
  - camels demonstrate the high financial cost of rewilding
  - other animals might fail to thrive in nonnative environments
  - other animals would equally disrupt North American habitats
  - large African carnivores are very different from camels

22. Both authors use questions (lines 42-47, Passage 1, and lines 84-87, Passage 2) primarily in order to
- (A) feign confusion
  - (B) anticipate objections
  - (C) pose alternative solutions
  - (D) acknowledge that they do not have all the answers
  - (E) raise doubts about aspects of the opposing argument
23. Which best characterizes the function of the final sentence of Passage 2 (lines 93-101) ?
- (A) It debates the merits of an argument.
  - (B) It offers alternatives to a plan.
  - (C) It summarizes a radical new hypothesis.
  - (D) It demands a change in current policies.
  - (E) It lists important objections to an idea.
24. The author of Passage 1 would most likely characterize the ideas in lines 93-101, Passage 2 ("If financial . . . fauna"), as
- (A) wasteful
  - (B) undisciplined
  - (C) prudent
  - (D) inadequate
  - (E) ambitious

**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.

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**SECTION 3**

Time — 25 minutes

18 Questions

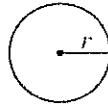
**Turn to Section 3 (page 4) of your answer sheet to answer the questions in this section.**

**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

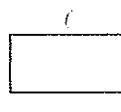
1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is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

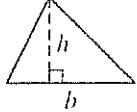


$$A = \pi r^2$$

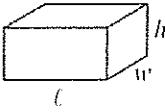
$$C = 2\pi r$$



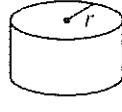
$$A = lw$$



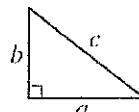
$$A = \frac{1}{2}bh$$



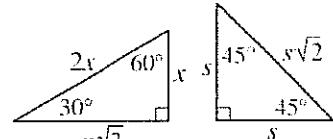
$$V = lwh$$



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



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



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.

1. If  $6x + px = 14x$  and  $x \neq 0$ , what is the value of  $p$ ?

- (A) 6  
(B) 8  
(C) 10  
(D) 14  
(E) 20

2. If the function  $f$  is defined by  $f(x) = 2x$ , which of the following expressions is equal to  $f(x) + 1$ ?

- (A)  $2x + 1$   
(B)  $2x + 2$   
(C)  $3x$   
(D)  $3x + 1$   
(E)  $3x + 2$

GO ON TO THE NEXT PAGE

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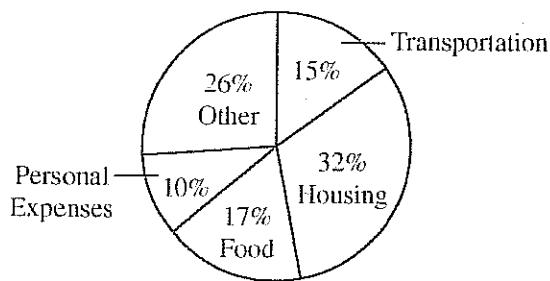
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## SMITH FAMILY EXPENDITURES IN 2005



3. Based on the graph above, if the Smith family's total expenditures in 2005 were \$30,000, what was the expenditure for transportation?

(A) \$2,000  
 (B) \$2,050  
 (C) \$4,000  
 (D) \$4,500  
 (E) \$5,000

5 UK quarts are approximately equal to 6 US quarts.

4. Based on the information above, which of the following is closest to 1 UK quart?
- (A) 0.5 US quart  
 (B) 0.7 US quart  
 (C) 0.8 US quart  
 (D) 1.2 US quarts  
 (E) 1.8 US quarts



Figure I

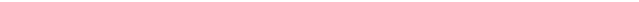


Figure II

5. When five identical rectangles are arranged horizontally as shown in Figure I above, the area of the resulting shaded figure is 10. If these five rectangles are rearranged as shown in Figure II, what is the area of the resulting shaded figure?

(A) 5  
 (B)  $\frac{15}{2}$   
 (C) 10  
 (D) 12  
 (E) 15



6. The letters  $w$ ,  $x$ ,  $y$ , and  $z$  stand for numbers on the number line above. Which of the following products is greatest?

(A)  $wx$   
 (B)  $wy$   
 (C)  $wz$   
 (D)  $xy$   
 (E)  $yz$

GO ON TO THE NEXT PAGE

**3****3****3****3****3****3****3****3**

7. Lines  $\ell$ ,  $m$ ,  $r$ , and  $s$  are all different lines that lie in the same plane. If  $\ell \perp m$ ,  $m \perp r$ , and  $r \perp s$ , which of the following must be true?

- I.  $\ell \perp s$
  - II.  $\ell \parallel r$
  - III.  $m \perp s$
- (A) I only  
(B) I and II only  
(C) I and III only  
(D) II and III only  
(E) I, II, and III

8. If  $x$  and  $y$  are positive numbers, then the inequality  $x\sqrt{3} > y\sqrt{5}$  is equivalent to which of the following?

- (A)  $x < \frac{5}{3}y$
- (B)  $x > \frac{5}{3}y$
- (C)  $x > \frac{25}{9}y$
- (D)  $x^2 < \frac{5}{3}y^2$
- (E)  $x^2 > \frac{5}{3}y^2$

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

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

Answer:  $\frac{7}{12}$ Write answer →  
in boxes.

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

Grid in result.

Answer: 2.5

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

← Fraction line  
Decimal point

Answer: 201

Either position is correct.

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

- 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:

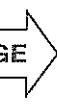
2	/	3
0	1	2
3	4	5
6	7	8

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

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

9. At a used book store, each paperback book is priced at \$1 and each hardcover book is priced at \$5. Ken purchased 25 used books at the store for a total price of \$65. How many paperback books did Ken purchase?

10. If  $7x - 3 = 2 - 2x$ , what is the value of  $3x$ ?

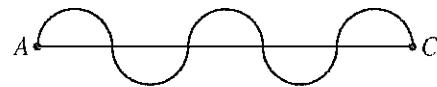
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3 3 3

3

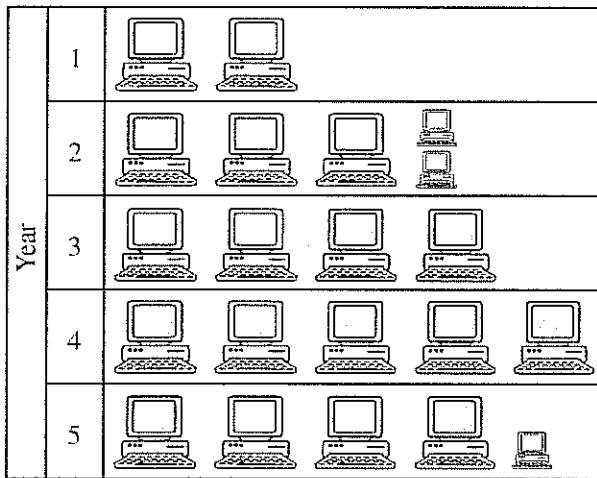
3 3 3

11. The line in the  $xy$ -plane that contains the points  $(1, 3)$  and  $(4, y)$  has slope 0. What is the value of  $y$ ?



13. In the figure above, the diameters of the five semicircles are equal and lie on line segment  $\overline{AC}$ . If the length of  $\overline{AC}$  is 12, what is the radius of one of the semicircles?

NUMBER OF COMPUTERS SOLD AT COMPCITY



= 2000 computers    = 500 computers

12. The pictogram above shows the number of computers sold at CompCity in its first five years of business. How many more computers were sold in the year with the highest volume of sales than in the year with the lowest volume of sales?

14. Five different bands have been selected to march in a parade. One band has been chosen to lead the parade. In how many different orders can the remaining four bands be placed in the parade?

3

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3

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3

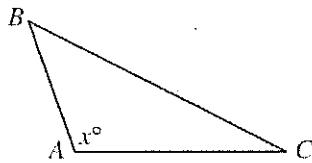
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3

For sequence  $A$ , the  $n$ th term is  $10n + 58$ .  
 For sequence  $B$ , the  $n$ th term is  $2^n$ .

15. The  $n$ th terms of sequences  $A$  and  $B$  are defined above for all positive integers  $n$ . What is the least value of  $n$  for which the  $n$ th term of sequence  $B$  is greater than the  $n$ th term of sequence  $A$ ?



Note: Figure not drawn to scale.

16. In the figure above,  $AB = 6$  and  $AC = 8$ . If  $x > 90$ , what is one possible length of  $\overline{BC}$ ?

17. Let the function  $g$  be defined for all values of  $x$  by  $g(x) = x(x - 1)$ . If  $m$  is a positive number and  $g(m + 2) = 12$ , what is the value of  $m$ ?

STUDENTS' LOCKER LOCATION BY GRADE

	9	10	11	12	Total
Hall A	155	85	20	0	260
Hall B	—	100	70	75	—
Hall C	25	20	90	115	250
Total	—	205	180	190	—

18. At Eastern High School, each student is assigned one locker. The locker may be either in hall  $A$ ,  $B$ , or  $C$ . The partially completed table above shows the number of students from each grade assigned a locker in each of the three halls. If 20 percent of the students in grade 9 were assigned a locker in hall  $B$ , what is the total number of students who were assigned a locker in hall  $B$ ?

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  
23 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

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

1. Films and paintings ----- a similar challenge: to ----- the viewer's eye that a two-dimensional surface actually has depth.
- (A) share . . warn
  - (B) overlook . . show
  - (C) face . . persuade
  - (D) disprove . . convince
  - (E) avoid . . teach

2. There was so much ----- in the recent senatorial campaign that voters tuned out, disgusted with the barrage of malicious accusations.
- (A) incompetence (B) lethargy (C) obstinacy
  - (D) mudslinging (E) grandstanding
3. Recent advances indicate that cures for some seemingly intractable diseases are now within reach, but scientists are being ----- in their public statements, mindful of past claims that proved -----.
- (A) circumspect . . erroneous
  - (B) nonchalant . . unambitious
  - (C) irascible . . apocalyptic
  - (D) adamant . . invulnerable
  - (E) equivocal . . unimpeachable
4. Nuclear engineer Meena Mutyala argues that nuclear power is an environmentally ----- technology, operating with essentially no emissions.
- (A) munificent (B) culpable (C) inimical
  - (D) benign (E) capricious
5. Harper Lee cannot be called ----- writer as she has published only one major work; however, her writing in that novel is so -----, so sharply perceptive, that it has earned her enduring popularity.
- (A) an erudite . . incisive
  - (B) a productive . . convoluted
  - (C) a prolific . . trenchant
  - (D) a verbose . . timorous
  - (E) an astute . . probing



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**

Americans should not be taxed to fund the Public Broadcasting Service, and Congress should terminate funding for it. We wouldn't want the federal government to publish a national newspaper. Neither should we have a government television network and a government radio network. If anything should be kept separate from government and politics, it's the news and public-affairs programming that informs Americans about government and its policies. When government brings us the news—  
Line 5 with all the inevitable bias and spin—the government is putting its thumbs on the scales of democracy. Journalists should not work for the government. Taxpayers should not be forced to subsidize news and public-affairs programming.  
10

Should the government fund a national public broadcasting system? While many artistically minded people choose to support the appropriation of their tax dollars to PBS, others consider the financial entwining of journalism and the government inappropriate. Some  
15 claim that since PBS is no longer the fledgling weakling that it was when it was founded, there is no longer any need for taxpayers to continue to fund it. Arts supporters counter that without government money, PBS will not be able to sustain its financial commitment to the creation of  
20 television that deals with nonmainstream, culturally diverse topics and art forms.  
25

6. Lines 3-6 (“We wouldn’t . . . network”) make use of which rhetorical strategy?
- (A) Exaggeration
  - (B) Analogy
  - (C) Personal anecdote
  - (D) Historical citation
  - (E) Figurative language

7. The author of Passage 1 would most likely argue that the “entwining” referred to in line 18 in Passage 2

- (A) cannot be justified because it targets certain taxpayers disproportionately
- (B) places too much of a burden on the federal government
- (C) requires congressional oversight if it is to be done properly
- (D) might prove unacceptable to even the most independent-minded journalists
- (E) interferes with the proper functioning of the American political system

8. Compared with the tone of Passage 2, the tone of Passage 1 is more

- (A) balanced
- (B) sincere
- (C) accepting
- (D) emphatic
- (E) ironic

9. Which best describes how each passage presents its argument?

- (A) Passage 1 makes a series of points to support a position, while Passage 2 presents views that conflict with one another.
- (B) Passage 1 offers multiple examples to illustrate a point, while Passage 2 discusses a situation in general terms.
- (C) Passage 1 includes personal anecdotes, while Passage 2 relies on factual evidence.
- (D) Passage 1 provides technical explanations, while Passage 2 focuses on a familiar hypothesis.
- (E) Passage 1 traces the history of an issue, while Passage 2 appeals to common sense to make its points.

**Questions 10-16 are based on the following passage.**

This passage, adapted from a 1996 book written by an African American woman who grew up in New York City, discusses jumping rope.

Ten years before Air Jordans, I learned to fly. It's like the way some kids stroll to a basketball hoop with a pumped-up ball and throw a few shots, hitting each one effortlessly. Like a car idling before a drag race, there is an invitation, perhaps even a threat, in the way their sneakers soft-shoe the pavement and the ball rolls around in their hands.

As double-dutch girls, we had our own prance. Three of us and a couple of ropes. It had to be at least three girls —two to turn, one to jump. We knew the corners where you could start a good game. Like basketball players going for an easy layup, we started turning nice and slow. Before jumping in, we would rock back and forth to propel ourselves forward. It wasn't a question of whether we'd make it in; we'd conquered that years before. The challenge was to prove how long we could jump. The tricks we would do—pop-ups, mambo, around the world—were just for show, just to work the other girls' nerves. The real feat was longevity. So when we picked the corner where we were going to double dutch, we came with ropes and patience.

There is a space between the concrete and heaven where the air is sweeter and your heart beats faster. You drop down and then you jump up again and you do it over and over until the rope catches on your foot or your mother calls you home. Your legs feel powerful and heavy as they beat the ground. When you do around the world, it's like a ballet dancer's pirouette. In the rope, if you're good enough, you can do anything and be anything you want.

We'd meet at about 3:30, after we'd changed from our school clothes into our play clothes. Then we'd jump until the parents started coming home. Most of our parents worked nine to five in Manhattan, and it took them about an hour to get home. We knew it was coming up on six o'clock when we saw the first grown-up in business clothes walking down the hill from the bus stop.

Sometimes a grown-up woman, dressed in the stockings and sneakers that all our mothers wore for the long commute home, would jump in—handbag and all—just to show us what she could do. She usually couldn't jump for very long. These women had no intention of sweating anyway.

Around this time, I would start looking out for my mother. I'd try to make my turn last long enough so she could see me jump.

"Wait, Mom, watch me jump!" I'd say.

"I've got to start dinner," she'd say. "And I've seen you jump before. Some other time," she'd say, closing the gate behind her.

50 There's so much I can do. So much stuff she doesn't know. But it's always some other time with her.

Here is what I wish she knew: There is nothing better than the space between the two ropes. The helix encircles you and protects you and there you are strong. I wish she'd let me show her.

10. Which best describes the primary purpose of the passage?

- (A) To provide a realistic view of a seemingly idyllic childhood
- (B) To illustrate the personal significance of an after-school pastime
- (C) To promote the benefits to young girls of a certain kind of play
- (D) To instruct others in the fine techniques of a difficult process
- (E) To represent a young girl's maturation as she gives up early childhood pursuits

11. In the first paragraph (lines 1-7), the author primarily uses which technique?

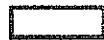
- (A) Comparisons
- (B) Exclamations
- (C) Foreshadowing
- (D) Irony
- (E) Personification

12. The sentence in lines 14-15 ("It . . . before") reveals an attitude of

- (A) relief
- (B) disgust
- (C) boredom
- (D) confidence
- (E) recklessness

13. Which situation is most like the one described in lines 16-18 ("The tricks . . . nerves")?

- (A) A magician uses sophisticated sleight of hand to entertain children at a birthday party.
- (B) A figure skater executes complex leaps and spins, hoping to fluster other skaters.
- (C) An anthropologist interviews people in order to understand their rituals.
- (D) A child imitates the behavior of adults in order to impress her peers.
- (E) A dance instructor attempts to teach a class a complicated set of dance steps.



14. As described in lines 27-28 ("In the . . . want"), jumping rope best represents what for the author?

(A) Group solidarity  
(B) Artistic precision  
(C) Enjoyable exercise  
(D) Soothing ritual  
(E) Unlimited possibility

16. As described in lines 52-53, the "helix" is best understood as representing what to the author?

(A) An intellectual challenge  
(B) An urgent need  
(C) An obstacle to progress  
(D) A feeling of vibrant well-being  
(E) A desire for dangerous risk taking

15. Lines 29-35 suggest which of the following about the parents?

(A) Their habits were predictable.  
(B) Their jobs were fulfilling.  
(C) They longed to relive their childhoods.  
(D) They envied the girls' rope-jumping skills.  
(E) They came from all walks of life.

Questions 17-23 are based on the following passage.

*The conflict known as the Trojan War has captured the Western imagination for thousands of years. Even at the time of the Greek poet Homer (circa 850 B.C.), whose epic poem, The Iliad, describes an event in the conflict, the war was already considered a legendary occurrence. In this passage, the author addresses the question, "Did the Trojan War actually happen?"*

In the ancient world it was the almost uniform belief that the Trojan War was a historical event: the philosopher Anaxagoras was one of only a handful known to have Line doubted it, on the good grounds that there was no *proof*.

5 But then, as now, everyone knew there was no historical record of the war; equally, they *knew* that it had happened! It is a paradox unique in historiography. When the "Father of History," Herodotus, who lived in the fifth century B.C., asked Egyptian priests whose chronicles covered many 10 centuries whether the Greek story of the war was true, he was simply asking whether they had any record of it. In the ancient Greek world, there were no written sources before the epics of Homer (traditionally performed by singers) were committed to writing, perhaps as late as the sixth century B.C.

15 There were no documentary sources at all available to the Greek historians of the fifth century B.C. It is interesting to see then that those historians were prepared to give total credence to the basis of the tradition described in the poems of Homer.

20 Out of Homer, Thucydides (circa 400 B.C.) constructed a brilliant résumé of "prehistoric" Greece that remains one of the most balanced and plausible accounts of how the war *might* have come about. We cannot be certain how much is his own intuition from observable remains (archaeological 25 sites) and deductions from the Homeric tale, or how much he derived from sources we do not now have, but most experts would rule out this last possibility. At any rate, Thucydides thought the story of Troy was true and the "imperial" power of Mycenae, the area of Greece from which the Greek leaders 30 came, a reality.

Thucydides also considered increased knowledge of seafaring in the Aegean Sea and the gradual construction of walled cities with acquired wealth and a more settled life. All these elements he saw as prerequisites for a united 35 expedition such as Homer described:

Some on the strength of their new riches built walls for their cities, the weaker put up with being governed by the stronger, and those who won superior power by acquiring capital resources brought the smaller cities under their control. Agamemnon (leader of the Greek forces) must have been the most powerful of the rulers of his day: this was why he was able to raise the force against Troy. At that time he had the strongest navy; thus in my opinion, fear played a greater part than loyalty in raising the expedition 40 against Troy.

Thus wrote Thucydides in the fifth century B.C.; that is, at as long a remove from the traditional date of the sack of Troy—twelfth century B.C.—as the signing of Magna Carta in 1215 is from the present day. The lack of anything beyond the words of the poets and "general tradition" is noteworthy, but nothing in this interpretation has been rebutted by modern archaeology or criticism. It remains a plausible model, incapable of proof.

17. As used in line 1, "uniform" most nearly means

- (A) unanimous
- (B) recurring
- (C) identical
- (D) cohesive
- (E) monotonous

18. The unique "paradox" referred to in line 7 is that

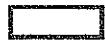
- (A) ancient historical methods are often superior to modern ones
- (B) Anaxagoras did not leave a clear statement of his own ardently held views
- (C) the man later known as the Father of History did not always verify the sources of his information
- (D) the Egyptians had better records of the Trojan War than did the Greeks
- (E) people believed firmly in an event that left no observable trace

19. According to the passage, for Thucydides the most convincing evidence for the existence of the Trojan War was found in which of the following?

- (A) Egyptian chronicles
- (B) Homer's epics
- (C) Archaeological findings
- (D) Greek historical records
- (E) Philosophical writings

20. Which of the following statements is most consistent with the analysis Thucydides provides in lines 36-46?

- (A) Those with the most noble motives succeeded.
- (B) A nation that had been weak sought to avenge previous slights.
- (C) Imbalances of power benefited some at the expense of others.
- (D) One country was seeking to have the most powerful army.
- (E) The value of national pride was being called into question.



21. The author most likely mentions the signing of Magna Carta (line 49) in order to
- (A) ensure the reader's confidence in the author's knowledge of history
  - (B) suggest that with passing time important historical events are forgotten
  - (C) contrast a well-documented event with one that many believe to be a myth
  - (D) make vivid the long duration of time between a possible Trojan War and the writings of Thucydides
  - (E) suggest that some events that occurred in ancient Greece affected thirteenth-century English history
22. Based on the information in the passage, which of the following is the best answer to the question, "Did the Trojan War actually happen?"
- (A) Probably not, because there is absolutely no documentary evidence
  - (B) Probably not, because evidence from literature is scarce
  - (C) Probably, because Egyptians knew about it prior to the fifth century B.C.
  - (D) Probably, because the vivid poetic description could only reflect an eyewitness account
  - (E) Probably, because evidence to the contrary has not been uncovered
23. The author's discussion of the Trojan War serves primarily to
- (A) suggest that proper historical research is a time-consuming process
  - (B) illustrate that some celebrated events cannot be verified
  - (C) show how techniques of verifying facts have evolved
  - (D) reveal how early historical research was conducted
  - (E) point out the consequences of flawed documentation in historical writing

**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. Hoping to capture some of her experiences growing up in the Himalayas, Kiran Desai decided setting her second novel in the mountain town of Kalimpong, where she spent time as a child.

- (A) decided setting
- (B) decided to set
- (C) decides setting
- (D) in deciding to set
- (E) having decided to set

2. Although she spoke only Chinese at the time and had to memorize her English lines phonetically, Gong Li gave a memorable performance in the film Memoirs of a Geisha.
- (A) Gong Li gave a memorable performance in the film *Memoirs of a Geisha*
  - (B) Gong Li, giving a memorable performance in the film *Memoirs of a Geisha*
  - (C) Gong Li, whose performance in the film *Memoirs of a Geisha* was memorably given
  - (D) but the performance in the film *Memoirs of a Geisha* given by Gong Li was memorable
  - (E) the film *Memoirs of a Geisha* had a memorable performance, it was given by Gong Li
3. One might expect global warming to cause plants to bloom earlier in the spring, but a recent study has shown that plants in northern latitudes blooming later as the planet warms.
- (A) that plants in northern latitudes blooming later
  - (B) that plants in northern latitudes they are blooming later
  - (C) that plants in northern latitudes are blooming later
  - (D) plants in northern latitudes their having bloomed later
  - (E) plants in northern latitudes that bloomed more later
4. Academic success in college is usually related to good study strategies, which include establishing a daily routine, arranging a comfortable place to work, and to take regular breaks.
- (A) to take regular breaks
  - (B) take regular breaks
  - (C) taking regular breaks
  - (D) breaks being regularly taken
  - (E) to take breaks regularly



5. This morning, just as the professor was leaving for his lecture tour, a panel of distinguished scientists had issued a report confirming his most recent findings.
- had issued a report confirming
  - issued a report confirming
  - issued a report to confirm of
  - had issued a report, and they confirm
  - has issued a report to confirm
6. While living in New York City, the speed and convenience of the subway system was something I came to appreciate.
- the speed and convenience of the subway system was something I came to appreciate
  - the subway system's speed and convenience were things I came to appreciate
  - its speed and convenience were things I came to appreciate about the subway system
  - I came to appreciate the speed and convenience being had by the subway system
  - I came to appreciate the speed and convenience of the subway system
7. Angel DeCorra began studying art at Smith College at a time when few Native American artists were receiving formal training in the European tradition.
- few Native American artists were receiving formal training
  - few Native American artists, who received formal training
  - few Native American artists having been formally trained
  - formal training would have been received by few Native American artists
  - formal training was received by few Native American artists
8. An oversized men's suit popular in the late 1930s and 1940s, it was known as the zoot suit, was a declaration of rebellious self-assertion for its wearers.
- it was known as the zoot suit,
  - the zoot suit, which
  - they knew it as the zoot suit, it
  - the zoot suit, it
  - the zoot suit
9. The part of Cyrano de Bergerac earned José Ferrer both the Tony and the Academy Awards, considered his finest role.
- The part of Cyrano de Bergerac earned José Ferrer both the Tony and the Academy Awards, considered his finest role.
  - The part of Cyrano de Bergerac, it is considered his finest role, earned José Ferrer both the Tony and the Academy Awards.
  - The part, considered his finest role, of Cyrano de Bergerac, earning José Ferrer both the Tony and the Academy Awards.
  - Considered his finest role, the part of Cyrano de Bergerac earned José Ferrer both the Tony and the Academy Awards.
  - Considered his finest role, José Ferrer won both the Tony and the Academy Awards for the part of Cyrano de Bergerac.
10. Although people have become much better informed about the possible dangers of exposure to ultraviolet radiation in tanning beds, use of the beds has declined very little during the past five years.
- Although people have become much better informed
  - Although now much better informed
  - Although having now become much better informed
  - Despite people have much better information
  - Despite their having much better information
11. John and Bob had been friends since kindergarten because he was good at soccer and ready to laugh at any joke.
- kindergarten because he was good at soccer
  - kindergarten because they were not only good soccer players
  - kindergarten because each was good at soccer
  - kindergarten, being not only good soccer players
  - kindergarten, they were both good at soccer



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

12. The intricately carved details on the pillars that  
 A

support the balcony is even more beautiful than  
 B                      C

the balcony itself. No error  
 D                      E

13. Since the tiny Republic of San Marino has an area of  
 A

only 24 square miles plus being completely  
 B

surrounded by Italy, few people are even aware  
 C                      D

of its existence. No error  
 E

14. The toys were made so poor that most parents  
 A

avoided purchasing them despite the low prices  
 B                      C

at which the items were advertised. No error  
 D                      E

15. What was most apparent at the food science  
 A

convention was the industry's continuing  
 B

emphasizing on health-promoting ingredients.  
 C                      D

No error  
 E

16. Recently, biologists studying the calls of chickadees  
 A

discovered that the birds' warning songs signal not  
 B                      C

only the presence as well as the size of nearby  
 D

predators. No error  
 E

17. Although polls showed that many voters felt

sympathetic toward the embattled politician,  
 A

he or she voted him out of office in the next  
 B                      C                      D

election. No error  
 E



18. Had I known that the line to get into the movie  
A  
would be so long, I would of left earlier to get  
B C  
to the theater or bought my ticket online. No error  
D E
19. People sharing housing with others often find that  
A  
cooking and cleaning are a difficult task to coordinate,  
C  
especially when housemates have very different  
D  
schedules. No error  
E
20. The reason the mammal is the dominant life form  
A  
in such a wide range of habitats is its ability to  
B C  
maintain a steady internal body temperature in  
practically any environment. No error  
D E
21. Some types of algae have so high an oil content that  
A B C  
scientists are seeking cost-effective ways to extract this  
oil and converted it into biodiesel or jet fuel. No error  
D E

22. African gray parrots are particularly noted for their  
A  
cognitive abilities, which are believed to have evolved  
B  
as a consequence of its history of cooperative feeding  
C D  
on the ground. No error  
E
23. Its settlement of the strike demonstrated that the  
A  
company can maintain strong labor relations, treat its  
C  
employees well, while still making a reasonable profit.  
D  
No error  
E
24. Elizabeth Ellet is best known for her historical  
A  
accounts that focus on ordinary lives, especially  
B  
that of women, rather than on larger political and  
C D  
socioeconomic events. No error  
E
25. The visual quality of the silent movies produced  
A  
during the 1920s were often extremely high.  
B C D  
No error  
E



26. Before the election, there was a long period of  
A  
disagreement among my friends and I, because we  
B C  
all had conflicting opinions from which we would not  
D  
be swayed. No error  
E

27. Amusement parks, particularly those featuring water  
A B  
rides, are a fun place for families to visit during the  
C D  
hot summer months. No error  
E

28. Despite its dry climate, the ancient city of Petra  
A  
had about 30,000 residents; this astonishing  
B C  
dense population was made possible only by  
D  
a cleverly designed water supply system. No error  
E

29. Researchers began to suspect that fatty acids in fish  
A  
might have a protective effect when they observed  
B  
that the frequency of heart disease among populations  
subsisting mainly on fish were surprisingly low.  
C D  
No error  
E

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

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

Questions 30-35 refer to the following passage.

(1) Over the last decade or so, organic food—food grown without artificial fertilizers or pesticides—has become extremely popular. (2) In 2006 organic food sales in the United States alone reached \$17 billion. (3) This figure is rather surprising when you consider that organic food is often much more expensive than conventionally grown food. (4) Organic fruits and vegetables can cost as much as 40 percent more than conventionally grown produce. (5) Many people believe that the extra cost is justified because it is more healthful than conventionally grown food. (6) This belief, however, is not totally supported by the evidence.

(7) Many proponents of organic food argue that artificial fertilizers and pesticides are harmful to human health and that people should therefore consume only food that has been grown without them. (8) While this is certainly a valid point, consumers can reduce their exposure to at least some of these chemicals by peeling or thoroughly washing produce. (9) They also argue that organically grown produce is more nutritious. (10) Some studies do, in fact, show that organic produce may initially be more nutritious than conventional produce, but other research suggests that storing and shipping may negate any initial nutritional advantage. (11) An organic apple shipped 2,000 miles and then left to sit on a grocery store shelf for two weeks may well have fewer vitamins than does a freshly picked conventionally grown apple.

(12) However, one argument for organic food is indisputable. (13) It is that organic food is better for the environment. (14) The reason for this is that farms that grow organic food use less energy and leave soils in better condition than on conventional farms.



30. In context, which of the following is the best revision of the underlined portion of sentence 4 (reproduced below) ?

*Organic fruits and vegetables can cost as much as 40 percent more than conventionally grown produce.*

- (A) By comparison, organic fruits and vegetables
- (B) But organic fruits and vegetables
- (C) Indeed, organic fruits and vegetables
- (D) This explains why organic fruits and vegetables
- (E) Despite this difference, organic fruits and vegetables

31. In context, which of the following phrases would most effectively replace the words “it is” in sentence 5 (reproduced below) ?

*Many people believe that the extra cost is justified because it is more healthful than conventionally grown food.*

- (A) it has been shown to be
- (B) they think that it is
- (C) fruits and vegetables are
- (D) organically grown food is
- (E) such produce must be

32. In context, which of the following revisions to sentence 9 (reproduced below) is most needed?

*They also argue that organically grown produce is more nutritious.*

- (A) Begin the sentence with “To the contrary.”.
- (B) Replace “They” with “Proponents”.
- (C) Change “argue” to “have argued”.
- (D) Replace “more” with “twice as”.
- (E) Add “by comparison” after “nutritious”.

33. Which of the following, if placed at the beginning of sentence 11 (reproduced below), would most effectively link it to sentence 10 ?

*An organic apple shipped 2,000 miles and then left to sit on a grocery store shelf for two weeks may well have fewer vitamins than does a freshly picked conventionally grown apple.*

- (A) Even so,
- (B) Despite such findings,
- (C) Other research, however, suggests that
- (D) As expected, they found that
- (E) For instance,

34. In context, which of the following is the best way to revise and combine sentences 13 and 14 (reproduced below) ?

*It is that organic food is better for the environment. The reason for this is that farms that grow organic food use less energy and leave soils in better condition than on conventional farms.*

- (A) Organic food is better for the environment, by organic farms producing food that uses less energy and leaves soils in better condition than conventional farms.
- (B) Because organic farms used less energy and left soils in better condition than conventional farms did, organic food was better for the environment.
- (C) Compared to conventional farms, which used more energy and left soils in worse condition, the food grown on organic farms was better for the environment.
- (D) Organic food is better for the environment because organic farms use less energy than conventional ones and leave soils in better condition.
- (E) Being that organic food is grown on farms that use less energy and leave soils in better condition than conventional farms, so it is better for the environment.

35. Which would make the best concluding sentence for the passage?

- (A) Nevertheless, supermarkets are devoting increasingly more space to the display of organic foodstuffs.
- (B) Ultimately, whether organic food’s lower environmental impact continues to justify its higher cost will be decided by the consumer.
- (C) And, as the cost of energy derived from conventional fuels rises, alternative sources will become economically viable.
- (D) As an added benefit, when one sort of pollution is reduced, support for sound environmental practices grows.
- (E) Still, the issue will not be resolved until the government clearly indicates what is “organic” and what is not.

**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**

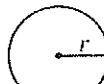
**Turn to Section 7 (page 6) of your answer sheet to answer the questions in this section.**

**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

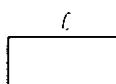
1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is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



$$A = \pi r^2$$

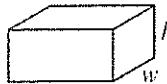
$$C = 2\pi r$$



$$A = l w$$



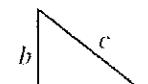
$$A = \frac{1}{2} b h$$



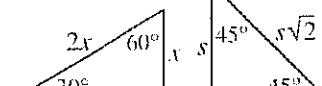
$$V = l w h$$



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



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



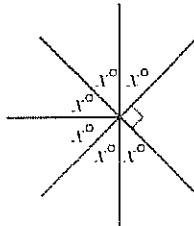
Special Right Triangles

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. When  $10^2$  is added to 57,860, the value of which digit in the number 57,860 will be increased?

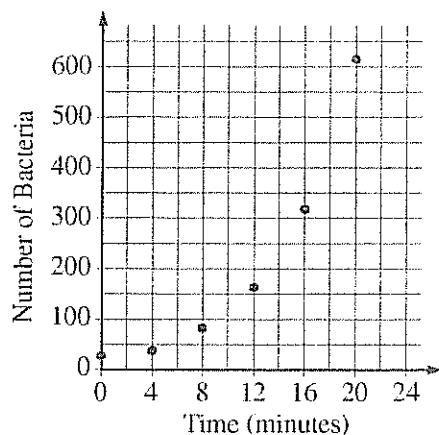
- (A) 0  
 (B) 5  
 (C) 6  
 (D) 7  
 (E) 8



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

- (A) 18  
 (B) 24  
 (C) 36  
 (D) 45  
 (E) 50

## GROWTH OF A POPULATION OF BACTERIA



3. The number of bacteria in a dish at various times from the start of an experiment is shown in the graph above. Based on the pattern indicated by the graph, which of the following is closest to the number of minutes from the start of the experiment to the time when there were 450 bacteria in the dish?

(A) 6  
(B) 10  
(C) 14  
(D) 18  
(E) 22

4. If the sum of the areas of two congruent squares is 50, what is the length of a side of each square?

(A) 2  
(B) 4  
(C) 5  
(D) 10  
(E) 25

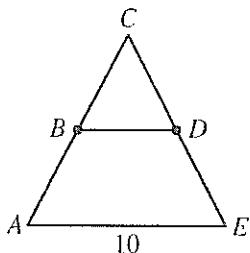
5. On a certain map, 2 inches represent 25 miles. How many inches on the map represent 200 miles?

(A) 4  
(B) 8  
(C) 12  
(D) 16  
(E) 20

6. If  $(y - x)(x - 2y) = k$ , which of the following is always equal to  $(y - x)(2x - 4y)$ ?

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

GO ON TO THE NEXT PAGE 



Note: Figure not drawn to scale.

7. In  $\triangle ACE$  above,  $B$  is the midpoint of  $\overline{AC}$  and  $D$  is the midpoint of  $\overline{CE}$ . If  $AC = 8$  and  $CE = 12$ , what is the perimeter of  $\triangle BCD$ ?

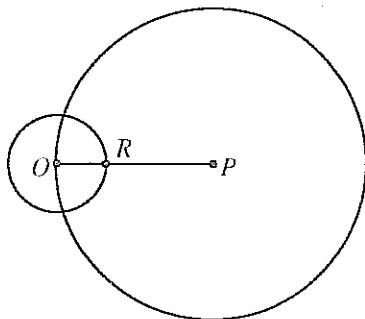
- (A) 13
- (B) 14
- (C) 15
- (D) 16
- (E) 17

8. If it takes  $n$  complete class periods to show a video and each class period is 45 minutes long, which of the following represents the length of the video, in minutes?

- (A)  $\frac{n}{45}$
- (B)  $\frac{3n}{4}$
- (C)  $\frac{4n}{3}$
- (D)  $\frac{45}{n}$
- (E)  $45n$

9. If  $j$  and  $k$  are integers and  $0 < j < k < 6$ , which of the following is a possible value of  $jk$ ?

- (A) 9
- (B) 14
- (C) 16
- (D) 18
- (E) 20



Note: Figure not drawn to scale.

10. In the figure above, point  $R$  lies on segment  $\overline{OP}$ . The area of the circle with center  $O$  is  $4\pi$ , and the area of the circle with center  $P$  is  $100\pi$ . What is the length of segment  $\overline{RP}$ ?

- (A) 10
- (B) 8
- (C) 6
- (D) 4
- (E) 2

**AVERAGE TIME  
PER SCHOOL WEEK  
SPENT ON HOMEWORK**

Grade	Number of Hours
9	5
10	$6\frac{3}{4}$
11	$9\frac{1}{2}$
12	$8\frac{3}{4}$

11. The table above shows the average (arithmetic mean) time a student spent on homework per school week during each of 4 years of high school. In total, how many hours did the student spend on homework during 4 years of high school? (Assume that 1 school week contains 5 days and 1 school year contains 180 days.)

(A) 322  
 (B) 1,008  
 (C) 1,080  
 (D) 5,040  
 (E) 5,400

12. One number is 8 more than twice another number. If the sum of the two numbers is 23, what is the greater of the two numbers?

(A) 10  
 (B) 12  
 (C) 15  
 (D) 18  
 (E) 31

$$N(x) = -2x + 30$$

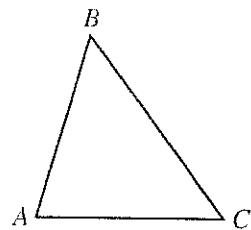
13. For a certain product, the number  $N$  of thousands of units sold each month is given by the function above, where  $x$  is the price per unit, in dollars, and  $0 < x \leq 15$ . The price per unit was \$14 in July and \$10 in August. How does the number of units sold in July compare to the number of units sold in August?
- (A) 4,000 fewer units were sold in July.  
 (B) 8,000 fewer units were sold in July.  
 (C) 20,000 fewer units were sold in July.  
 (D) 12,000 more units were sold in July.  
 (E) 16,000 more units were sold in July.

14. The volume of a right circular cylinder is  $64\pi$  cubic inches. If the height and base radius of the cylinder are equal, what is the height of the cylinder?

(A) 4 inches  
 (B) 6 inches  
 (C) 8 inches  
 (D) 16 inches  
 (E) 32 inches

15. If the average (arithmetic mean) of  $x$ ,  $y$ , and 24 is 10, what is the average of  $x$  and  $y$ ?

- (A) 2  
(B) 3  
(C) 6  
(D) 7  
(E) It cannot be determined from the information given.



17. In the triangle above,  $AB = AC = 5$  and  $BC = 6$ . What is the area of the triangle?

- (A) 4  
(B) 6  
(C) 9  
(D) 12  
(E) 16

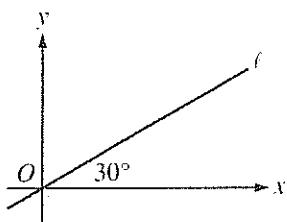
16. In a survey, 78 people were asked about two television programs,  $X$  and  $Y$ . Of the people surveyed, 56 watch program  $X$ , 42 watch program  $Y$ , and 7 watch neither program. How many of the people surveyed watch both programs?

- (A) 15  
(B) 20  
(C) 27  
(D) 29  
(E) 36

18. Positive integers  $x$ ,  $y$ , and  $z$  satisfy the equations

$x^{-y} = \frac{1}{8}$  and  $y^z = 243$ . What is the value of  $x + z$ ?

- (A) 5  
(B) 7  
(C) 9  
(D) 11  
(E) 13



19. In the figure above, what is the equation of line  $\ell$ ?

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

20. If  $a > 0$ ,  $x^2 + y^2 = a$ , and  $xy = a - 10$ , what is  $(x + y)^2$  in terms of  $a$ ?

- (A)  $a - 20$
- (B)  $2a - 20$
- (C)  $2a - 10$
- (D)  $3a - 20$
- (E)  $3a - 10$

**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

20 Questions

**Turn to Section 8 (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. Because Isaac found the language of advertising both ----- and insulting, he ----- watching commercials on television.

- (A) offensive . . avoided
- (B) amusing . . hated
- (C) irritating . . tolerated
- (D) inviting . . enjoyed
- (E) complicated . . discussed

2. In the red Namibian desert of Demarala, about 100 black rhinos still manage to ----- even though the terrain is extraordinarily -----.

- (A) congregate . . spacious
- (B) explore . . level
- (C) flourish . . abundant
- (D) thrive . . hostile
- (E) migrate . . safe

3. The term “dry cleaning” is something of a -----, since this process generally involves application of perchloroethylene, a liquid chemical.
- (A) stereotype
  - (B) memento
  - (C) proverb
  - (D) misnomer
  - (E) speculation
4. For thousands of years, nomads, conquerors, traders, and pilgrims have ----- the region, contributing to its multicultural heritage and its ----- of artifacts.
- (A) examined . . dearth
  - (B) circumvented . . selection
  - (C) canvassed . . paucity
  - (D) traversed . . wealth
  - (E) studied . . uniformity
5. Displaying a heightened sense of -----, many of author María Cristina Mena’s characters exemplify a dignified and polite society.
- (A) eminence
  - (B) decorum
  - (C) ebullience
  - (D) realism
  - (E) dissipation
6. Dr. Yuan headed a medical team that was highly -----, in that it represented multifarious specialties and varied experiences.
- (A) refractory
  - (B) assiduous
  - (C) eclectic
  - (D) remunerative
  - (E) cohesive



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 7-20 are based on the following passage.**

This passage is adapted from a 2004 book about prominent film critic Pauline Kael, written by an editor and critic who knew her personally.

Kael didn't have to convince most of her readers that films mattered, but she succeeded better than anyone else in articulating why, and she was able to do so without either condescending to the medium or granting the industry any more respect than she thought it deserved. From her first review to her last, a span of nearly four decades, she was remarkably consistent; her prose got more intricate, but her approach never changed. She was as sensitive to fraud as some people are to pollen, and this aversion was probably what made her such a natural as a critic. That most movies are vast meadows of fraud didn't faze her (though it often depressed her). Her genius was for separating out what was fake from what was true, zeroing in on the parts of a movie—a performance, a theme, a look, a line—that you could respond to without being had. It was even OK to respond to fraud if you knew what you were responding to, because certain kinds of fraud appeal to something in our natures that isn't fraudulent. "Whom could it offend?" she asked of the movie *The Sound of Music*.<sup>\*</sup> "Only those of us who, *despite the fact that we may respond*, loathe being manipulated in this way and are aware of how self-indulgent and cheap and ready-made are the responses we are made to feel." Kael understood the reasons smart people love movies even when movies aren't smart.

Line

Kael made much out of the progress in her writing from the semiformality of her early essays to the unbuttoned exuberance of her late ones, but I think it mattered more to her than it did to her readers, for whom the early writings were already a jolt. The voice was there. That voice became instrumental in reshaping the American critical language, stripping it down and making it colloquial. But between, say, the rich bombast of H. L. Mencken and the late Kael's fanciful slang, there were significant way stations, such as Dwight Macdonald and James Agee, both of whom Kael admired. These writers were consciously direct and informal; so was she, but by the end of her career she was so bent on bringing the fizz of the American vernacular into literary usage that her slang took on a richness of its own. She said she wanted to talk about movies the way people talk about them leaving the theater, and her prose does seem to replicate the human voice. But this speaking voice is a carefully crafted illusion—"pure literary artifice,

carefully, painstakingly constructed, masquerading as ordinary speech," as John Bennett, her last editor at *The New Yorker*, recalled in a talk after her death. "No one has ever talked the way Pauline writes," he said. A label that turns up regularly in articles about Kael—often by detractors, who feel they have to grant her *something* before they start hacking away—is *stylist*. She was, indeed, a major stylist, and she was already one in her first published essays. But the word suggests that the splendor of her writing was a bonus that came packaged with her criticism. No: her writing *is* her criticism. In her case, style is substance. A critic's words convey her ideas, but her style—her craft—carries the authority of her personality, from which her tastes grow. An anecdote: one summer day not too many years ago, I was on Kael's verandah, staring off vacantly, and seeing me through the screen door, she called, "What are you doing?" "Thinking," I told her. (I wasn't.) She said, "I only think with a pencil in my hand." It was just a small joke, but it got at something. You sit down to review a work you're not sure about your response to, and by the time you get up from your desk, you know what you think. It isn't a matter of taking a stand and then coming up with an argument to defend it; the argument is more organic than that. As you connect your thoughts—as you try to make them coherent by the simple method of fixing your sentences, making the words flow, correcting imprecisions—an argument emerges. There may be beautifully vacant writing, but I can't cite any beautifully vacant criticism. What I *can* cite is a lot of bad critical prose that thinks it can get away with its mediocrity by virtue of the (ostensibly) excellent quality of the thought behind it. "I don't play accurately—any one can play accurately—but I play with wonderful expression," the playwright Oscar Wilde has a character say as he rises from the piano. Perceptions that aren't backed up by creditable prose are generally worthless, because writing isn't just a conduit for thinking. Writing *is* thinking.

\* Popular 1965 film about a family musical troupe narrowly escaping harm on the eve of the Second World War

7. In lines 1-8 ("Kael . . . changed"), the author's attitude toward Kael's work is one of
- skepticism
  - uncertainty
  - indifference
  - admiration
  - envy



8. In line 12, “genius” most nearly means
- prevailing character
  - exceptional talent
  - guardian spirit
  - influence
  - prodigy
9. In line 13, “true” most nearly means
- steadfast
  - typical
  - genuine
  - rightful
  - necessary
10. Which is the best interpretation of Kael’s answer to the question posed in line 19 (“Whom . . . offend”)?
- Virtually no one
  - No one but Kael herself
  - Discerning filmgoers
  - Those who dislike musical films
  - Those who dislike historical films
11. The author mentions Dwight Macdonald and James Agee in line 35 to make the point that
- Kael’s exuberant voice has long been a staple of American writing
  - Kael’s supposed innovations can all be traced to other authors
  - Kael was inspired to become a film critic because of her admiration for other critics
  - Kael was not unique among American critics in preferring a less ornate style
  - Kael was part of a group of writers who admired and supported each other
12. Which best describes Kael’s view of “the fizz” (line 38)?
- It is lively and compelling.
  - It was previously more vibrant than it is now.
  - It is very American in its strict formality.
  - It was adopted by too many film critics.
  - It is loud and abrasive.
13. The passage indicates that, for Kael, talking about movies “the way people talk about them leaving the theater” (lines 40-41) involved the use of
- colloquial expressions
  - technical vocabulary
  - outdated phrases
  - allusions to other films
  - lengthy quotes from filmgoers
14. The final paragraph (lines 48-81) is primarily concerned with
- the many ways to approach a writing project
  - the relationship between style and substance
  - the process of editing one’s own writing
  - what constitutes bad criticism
  - Kael’s response to her critics
15. In line 50, “hacking away” most nearly means
- pruning injudiciously
  - coughing uncontrollably
  - criticizing vigorously
  - managing successfully
  - editing effectively
16. In context, lines 57-62 (“An anecdote . . . something”) principally serve to
- point out the sources of humor in Kael’s writing
  - offer a gentle critique of Kael’s film criticism
  - reveal something about the author’s character
  - call attention to the author’s relationship with Kael
  - introduce the author’s reflections on the nature of writing
17. The author’s main point in lines 63-70 (“You sit . . . emerges”) is that
- opinions come into focus as you try to express them
  - coherent thoughts are much more important than prose style
  - you must know where you stand before you can convince others
  - an organic argument about a film need not be based on personal experience
  - even the most talented writers occasionally need to revise their work
18. The kind of piano playing favored by the character in Wilde’s play (lines 75-77) would be most similar to
- an artfully written biography containing factual errors
  - a dazzling poem written by one of the characters in a novel
  - a harshly critical but insightful review of a new movie
  - a dance performed with technical brilliance but no visible emotion
  - a painting that accurately portrays a scene from history

8



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any part of this page is illegal.



8

19. Which best describes the author's tone in lines 78-81 ("Perceptions . . . is thinking")?

(A) Triumphant  
(B) Resolute  
(C) Snide  
(D) Conciliatory  
(E) Ambivalent

20. The author suggests which of the following about Kael's work as a film critic?

(A) It declined over time.  
(B) It is overestimated.  
(C) It has not been objectively evaluated.  
(D) It is only now fully appreciated.  
(E) It has been a source of some disagreement.

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 9

Time — 20 minutes

16 Questions

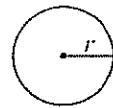
**Turn to Section 9 (page 7) of your answer sheet to answer the questions in this section.**

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

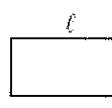
Notes

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

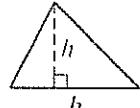
Reference Information



$$A = \pi r^2$$



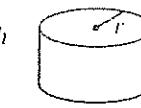
$$A = lw$$



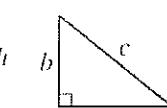
$$A = \frac{1}{2}bh$$



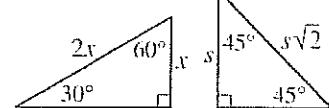
$$V = lwh$$



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



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



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.

1. If  $x > 2$ , which of the following represents twice the difference between  $5x$  and 8?
- (A)  $2(8) - 5x$   
 (B)  $2(5x - 8)$   
 (C)  $2(5x) - 8$   
 (D)  $2(3x)$   
 (E)  $5x - 2(8)$

2. The volume of a rectangular box is 1 cubic foot.

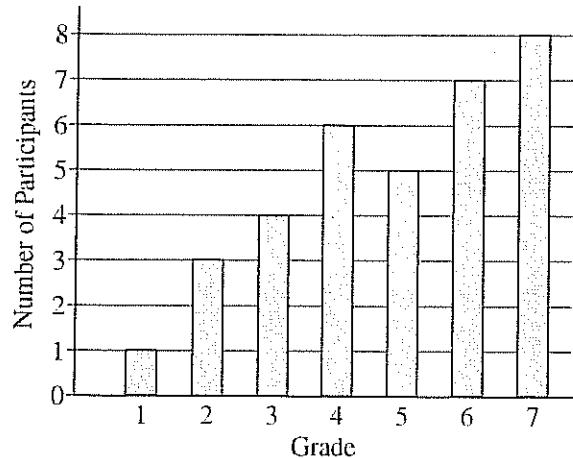
If the length of the box is 2 feet and the width is  $\frac{1}{2}$  foot, what is the height?

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

**GO ON TO THE NEXT PAGE**

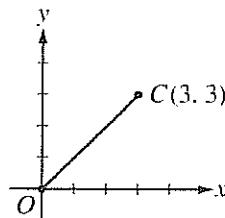


## SCIENCE FAIR PARTICIPANTS



3. The graph above shows the number of participants in a science fair for grades 1 through 7 at Blue Hills Schools. According to the graph, how many more students in grades 1 through 5 participated in the science fair than students in grades 6 and 7?
- (A) 4  
(B) 6  
(C) 7  
(D) 8  
(E) 11

5. In the  $xy$ -coordinate system above,  $\overline{OC}$  is a diagonal of a square (not shown). What is the area of the square?
- (A) 3  
(B) 6  
(C) 8  
(D) 9  
(E) 12



$$\sqrt{a+b} = \sqrt{a} + \sqrt{b}$$

4. Which of the following pairs  $(a, b)$  shows that the equation above is not always true?
- (A)  $(0, 0)$   
(B)  $(0, 2)$   
(C)  $(2, 0)$   
(D)  $(4, 0)$   
(E)  $(4, 4)$

GO ON TO THE NEXT PAGE



Figure 1

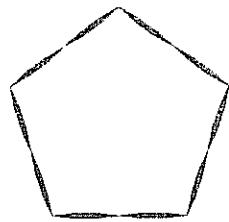


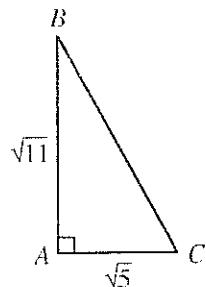
Figure 2

6. Figures 1 and 2 above show how toothpicks are being used to create a sequence of regular pentagons. The length of each side of a pentagon in the sequence is increased by one toothpick to build the next pentagon. How many more toothpicks will be needed to build the 5th pentagon in the sequence than the 4th pentagon?

(A) 1  
(B) 5  
(C) 10  
(D) 20  
(E) 25

7. If  $t = x + 2$  and  $t = y - 4$ , which of the following must be true?

(A)  $t = x$   
(B)  $x = y$   
(C)  $t < x$   
(D)  $y < t$   
(E)  $x < y$



Note: Figure not drawn to scale.

8. In right triangle  $ABC$  above, what is the length of side  $\overline{BC}$ ?

(A) 4  
(B) 6  
(C) 8  
(D) 12  
(E) 16



9. The sum of the numbers  $x$ ,  $3x - y$ , and  $2y + 4$  is subtracted from 15. In terms of  $x$  and  $y$ , what is the result?

(A)  $11 - 4x - 3y$   
(B)  $11 - 4x - y$   
(C)  $11 + 2x - 3y$   
(D)  $19 - 4x - y$   
(E)  $19 + 2x - 3y$

$$\begin{aligned}|x + 3| &\geq 5 \\ |y - 4| &\leq 3\end{aligned}$$

11. If  $x$  and  $y$  satisfy the inequalities above, then  $|xy|$  could be any of the following EXCEPT

(A) 16  
(B) 8  
(C) 4  
(D) 2  
(E) 1

10. Single-color tokens of blue, red, green, or yellow are placed in a single line so that the pattern of blue, red, green, yellow, blue, red, green, yellow repeats throughout. If the first token in the line is blue, which of the following tokens is green?

(A) 117th  
(B) 118th  
(C) 119th  
(D) 120th  
(E) 121st

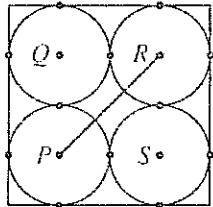


12. In the  $xy$ -plane, the graph of the function  $f$ , with equation  $f(x) = ax^2 - 9$ , passes through the point  $(-3, 3)$ . What is the value of  $a$ ?

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

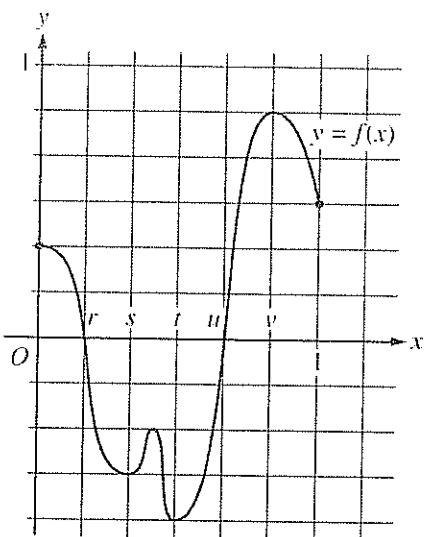
14. If  $a$  and  $b$  are each positive integers less than 10 and  $\frac{a}{b}$  is equivalent to  $\frac{2}{3}$ , how many values of  $a$  are possible?

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



13. In the figure above, each of the points  $P$ ,  $Q$ ,  $R$ , and  $S$  is the center of a circle of radius 4. The points where the circles are tangent to each other and to the square are marked. What is the length of segment  $\overline{PR}$ ?

(A) 8  
 (B) 12  
 (C)  $4\sqrt{2}$   
 (D)  $8\sqrt{2}$   
 (E)  $8\sqrt{3}$



15. The graph of the function  $f$  on the interval  $0 \leq x \leq 1$  is shown above. Which of the following expressions represents the difference between the maximum and minimum values of  $f(x)$  on the interval  $0 \leq x \leq 1$ ?

(A)  $f(v - s)$   
 (B)  $f(v - t)$   
 (C)  $f(u) - f(r)$   
 (D)  $f(v) - f(s)$   
 (E)  $f(v) - f(t)$

16. The integers 1 through 6 appear on the six faces of a cube, one on each face. If three such cubes are rolled, what is the probability that the sum of the numbers on the top faces is 17 or 18?

(A)  $\frac{1}{108}$   
 (B)  $\frac{1}{54}$   
 (C)  $\frac{1}{27}$   
 (D)  $\frac{1}{18}$   
 (E)  $\frac{1}{16}$

**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. Elizabeth Garrett Anderson learned French so that she could study medicine at the Sorbonne in Paris; in 1870 her degree was received, she returned to practice medicine in Britain.

- (A) her degree was received, she
- (B) her degree was received by her who
- (C) she received her degree and
- (D) she received her degree,
- (E) receiving her degree,

2. The foundation planning to bring together scholars and industrial experts to evaluate new approaches to manufacturing and trade efficiency.
- (A) The foundation planning
  - (B) The foundation is planning
  - (C) The foundation, which plans
  - (D) Planning for the foundation
  - (E) As planned, the foundation
3. Recalling how difficult it is to park a car at the airport, our decision was taking the train.
- (A) our decision was taking the train
  - (B) our decision was to take the train
  - (C) we decided to take the train
  - (D) taking the train is what we decided to do
  - (E) it was our decision to take the train
4. The Australian apple moth had never been seen in the continental United States before last February, when one has been found by a scientist in California.
- (A) when one has been
  - (B) when one was
  - (C) one was then
  - (D) one has been
  - (E) and when one was



5. The recent discovery that microbes can survive in extremely hostile environments on Earth have fueled speculation by some scientists that life may exist under similarly harsh conditions on other planets.
- (A) have fueled  
 (B) fueling  
 (C) have been fueling  
 (D) has fueled  
 (E) having fueled
6. A rapid transit system, though often costly, can be a practical solution to growing urban traffic congestion.
- (A) though often costly  
 (B) while it is often being costly  
 (C) often in spite of their costliness  
 (D) even though they often cost a lot  
 (E) although it often has a lot of cost
7. Agreeing upon it beforehand, the new municipal budget passed with little opposition when it was put before the city council.
- (A) Agreeing upon it beforehand,  
 (B) They agreed upon it beforehand, therefore  
 (C) It being agreed upon beforehand, so  
 (D) Having been agreed upon beforehand,  
 (E) Due to agreeing upon it beforehand,
8. Whereas the participating candidates described the debate as vigorous, to some members of the audience it seemed downright hostile.
- (A) to some members of the audience it seemed  
 (B) but to some members of the audience it seemed  
 (C) and it seemed to some members of the audience  
 (D) and seemed to some members of the audience  
 (E) seeming to some members of the audience
9. Running outdoors burns about five percent more calories than if you are running on a treadmill, in part this is because there is greater wind resistance outdoors.
- (A) if you are running on a treadmill, in part this is because there is  
 (B) if you run on a treadmill, in part because of the  
 (C) when running on a treadmill, in part because of the  
 (D) running on a treadmill, which is in part because of the  
 (E) running on a treadmill, in part because there is
10. Played with a soccer ball and peach baskets, the first basketball game took place in 1891 in Springfield, Massachusetts, with William Chase scoring the only point.
- (A) took place in 1891 in Springfield, Massachusetts, with William Chase scoring the only point  
 (B) taking place in 1891 in Springfield, Massachusetts and William Chase scoring the only point  
 (C) was held in Springfield, Massachusetts, in 1891, William Chase scored the only point  
 (D) was held in Springfield, Massachusetts and, scoring the only point, was William Chase in 1891  
 (E) was in 1891 in Springfield, Massachusetts with the only point that was scored by William Chase
11. I had never encountered such arrogance before, I did not know how to react.
- (A) I had never encountered  
 (B) I never encountered  
 (C) Never had I encountered  
 (D) Never having encountered  
 (E) Never did I encounter



12. Tornadoes form when large air masses of different temperatures collide, which results from either a change in the direction or the speed of the wind.
- (A) collide, which results from either a change in  
(B) collide, resulting either from a change in  
(C) collide as the result of a change in either  
(D) have collided either as the result of a change in  
(E) colliding results from either a change to
13. Speaking about her meteoric rise from the mail room to the boardroom, the audience was captivated by the executive's description of her long career.
- (A) the audience was captivated by the executive's  
(B) the audience were captive to the executive's  
(C) captivating the audience with the executive's  
(D) the executive who captivated the audience by her  
(E) the executive captivated the audience with her
14. Hubble's law has great significance not only because it describes the expansion of the universe, it can also be used to calculate the age of the cosmos.
- (A) universe, it can also  
(B) universe, but it can  
(C) universe, but it also can  
(D) universe but also because it can  
(E) universe but because it also can

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 AETV, BWTV

### **Critical Reading**

#### **Section 2**

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

#### **Section 5**

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

#### **Section 8**

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

Number correct

Number correct

Number correct

Number incorrect

Number incorrect

Number incorrect

### **Mathematics**

#### **Section 3**

<b>Multiple-Choice Questions</b>		<b>Student-Produced Response Questions</b>	
COR. DIFF.	COR.	DIFF.	ANS. LEV.
ANS. LEV.	ANS.	LEV.	
1. B 1	9. 15	2	
2. A 1	10. $5/3$ , 1.66 or 1.67	3	
3. D 1	11. 3	2	
4. D 3	12. 6000	1	
5. C 3	13. 1.2 or 6/5	3	
6. A 3	14. 24	3	
7. B 3	15. 8	3	
8. E 4	16. $10 < x < 14$	4	
	17. 2	4	
	18. 290	4	

#### **Section 7**

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

#### **Section 9**

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

Number correct

Number correct  
(9-18)

Number incorrect

Number correct

Number correct

Number incorrect

Number incorrect

### **Writing Multiple-Choice**

#### **Section 6**

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

#### **Section 10**

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

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

- If the raw score is a fractional number, it is rounded to the nearest whole number. For example, a raw score of 36.25 is rounded to 36, the nearest whole number. A raw score of 36.50 is rounded upward to 37.
3. **Essay scoring.** Using the scoring guide shown on page 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 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 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 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 AETV, BWTV

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 1–23 + \_\_\_\_\_

Section 8: Questions 1–20 + \_\_\_\_\_

Total = \_\_\_\_\_ (A)

How many critical reading questions did you get wrong?

Section 2: Questions 1–24 \_\_\_\_\_

Section 5: Questions 1–23 + \_\_\_\_\_

Section 8: Questions 1–20 + \_\_\_\_\_

Total = \_\_\_\_\_

× 0.25 = \_\_\_\_\_ (B)

A – B = \_\_\_\_\_  
Critical Reading  
Raw Score

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

Use the table on page 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 9: 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 9: 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 AETV, BWTV**

Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Multiple-Choice Scaled Score	Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Multiple-Choice Scaled Score
67	800			31	500	540	54
66	800			30	500	530	54
65	800			29	490	520	53
64	790			28	480	520	52
63	770			27	480	510	51
62	750			26	470	500	50
61	740			25	470	490	49
60	720			24	460	490	48
59	710			23	450	480	47
58	700			22	450	470	46
57	690			21	440	460	46
56	680			20	440	460	45
55	670			19	430	450	44
54	660	800		18	420	440	43
53	650	770		17	420	430	42
52	640	750		16	410	420	41
51	630	730		15	400	420	40
50	620	710		14	400	410	39
49	620	700	80	13	390	400	39
48	610	690	78	12	380	390	38
47	600	680	75	11	380	380	37
46	600	670	73	10	370	370	36
45	590	660	71	9	360	360	35
44	580	650	69	8	350	350	34
43	580	640	68	7	350	340	33
42	570	630	66	6	340	330	32
41	560	620	65	5	330	310	30
40	560	610	64	4	320	300	29
39	550	610	63	3	310	290	27
38	540	600	61	2	290	270	26
37	540	590	60	1	280	250	24
36	530	580	59	0	260	230	21
35	530	570	58	-1	240	210	20
34	520	560	57	-2	220	200	20
33	510	560	56	-3	200	200	20
32	510	550	55	and below			

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

**SAT Writing Composite Score Conversion Table**  
**Form Code AETV**

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

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

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