

**Form Codes AEHA, BWHA**



# The SAT<sup>®</sup>

## Question-and-Answer Service January 2011 Administration

### INSIDE:

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

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# SAT<sup>®</sup>

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

This booklet contains the SAT® you took in January 2011, starting with all the essay prompts given in January, including the one you answered. It also includes scoring information. If the SAT you took included an unscored “equating” section, this booklet will not include that section.

## Reviewing Your SAT Results

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

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

Idealistic people, people who pursue great ideas in hopes of changing the world, often have ambitious plans that are difficult or even impossible to carry out. These people can claim few solid accomplishments. In contrast, practical people concentrate on workable ideas and goals, even though these may not meet an idealist's high standards. Their approach is likely to be more valuable than the approach of idealistic people.

**Assignment:** Is an idealistic approach less valuable than a practical approach? Plan and write an essay in which you develop your point of view on this issue. Support your position with reasoning and examples taken from your reading, studies, experience, or observations.

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

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People generally put more trust in what they have learned for themselves than in what they learn from others. Few people, however, are really motivated to learn anything on their own. They are much more apt to learn when others are willing to teach them. Even though learning from others means occasionally learning things that are not useful or important, people are still better off when they learn from others.

**Assignment:** Is it better for people to learn from others than to learn on their own? Plan and write an essay in which you develop your point of view on this issue. Support your position with reasoning and examples taken from your reading, studies, experience, or observations.

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

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

Too many people do not consider their task or project complete or acceptable until every detail has been done right. Fortunately, such people have not always had their way, since nothing would ever be completed if we had to check every detail before we could consider our work done. In fact, none of the world's greatest accomplishments would have been made, because none of them is perfect in every detail.

**Assignment:** Do people put too much importance on getting every detail right on a project or task? Plan and write an essay in which you develop your point of view on this issue. Support your position with reasoning and examples taken from your reading, studies, experience, or observations.

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- **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.

People in our goal-oriented society place far too much emphasis on the outcomes of what they do. As a result, they miss out on the most important part of attempting anything: the process itself. The process of trying to achieve something is always more meaningful and enjoyable than reaching the final goal. Whether we succeed or fail, it is the process—how we go about achieving the goal—that matters most.

**Assignment:** Does the process of doing something matter more than the outcome? 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

18 Questions

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

**Directions:** This section contains two types of questions. You have 25 minutes to complete both types. For questions 1-8, solve each problem and decide which is the best of the choices given. Fill in the corresponding circle on the answer sheet. You may use any available space for scratch work.

Notes

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

Reference Information



$$A = \pi r^2$$

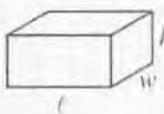
$$C = 2\pi r$$



$$A = lw$$



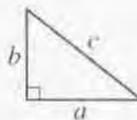
$$A = \frac{1}{2}bh$$



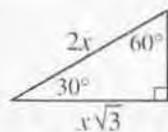
$$V = lwh$$



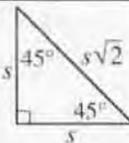
$$V = \pi r^2 h$$



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

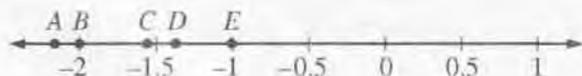


Special Right Triangles



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. Of the lettered points on the number line above, which is closest to  $-1.579$  rounded to the nearest tenth?

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

2. Auto Motor Sales leases a new delivery truck for a one-time payment of \$2,800 plus \$420 per month for 48 months. Which of the following functions  $f$  models the total amount, in dollars, that would have been paid at the end of  $m$  months of the lease, where  $m$  is a positive integer less than or equal to 48?

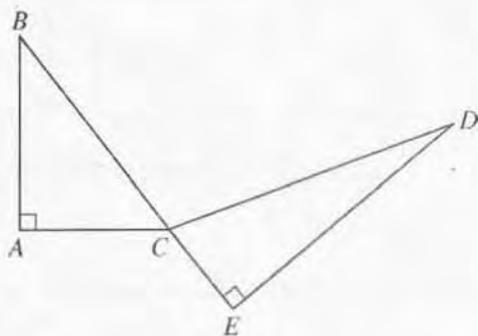
- (A)  $f(m) = 2,800 + m$   
(B)  $f(m) = 2,800 + 48m$   
(C)  $f(m) = 2,800 + 420m$   
(D)  $f(m) = 3,220 + m$   
(E)  $f(m) = 3,220m$

GO ON TO THE NEXT PAGE



3. If the average (arithmetic mean) of 3, 4, and  $m$  is 8, what is the average of 3, 7, and  $m$ ?

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



Note: Figure not drawn to scale.

4. In the figure above, point  $C$  lies on  $\overline{BE}$ . If  $AB = 8$ ,  $AC = 6$ ,  $CD = 13$ , and  $DE = 12$ , what is the length of  $\overline{BE}$ ?
- (A) 11  
(B) 12  
(C) 13  
(D) 14  
(E) 15

5. A perfect square is an integer that is the square of an integer. The integers  $h$ ,  $k$ , and  $m$  are 4, 6, and 9, not necessarily in that order.

- $k$  is a perfect square.
- $m$  is an even integer.
- $h > k$

Which of the following statements is FALSE?

- (A)  $h > m$   
(B)  $m > k$   
(C)  $m$  is a perfect square.  
(D)  $m$  is a multiple of 3.  
(E)  $h$  is a multiple of 3.

6. If  $k$  is 3 more than half of  $m$ , what is  $m$  in terms of  $k$ ?

- (A)  $6k$   
(B)  $2(k - 3)$   
(C)  $2(3 - k)$   
(D)  $\frac{k - 3}{2}$   
(E)  $\frac{k + 3}{2}$



7. In the  $xy$ -plane, the points  $(1, -3)$ ,  $(2, 2)$ , and  $(3, p)$  are collinear. What is the value of  $p$ ?
- (A) 1  
(B) 3  
(C) 4  
(D) 7  
(E) 8
8. If  $y = x^2 - 1$  and  $x$  is a real number, which of the following CANNOT be the value of  $y$ ?
- (A) -2  
(B) -1  
(C) 0  
(D) 1  
(E) 2



**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.

Grid in result.

Fraction line

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

Answer: 2.5

Decimal point

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

Answer: 201

Either position is correct.

2	0	1	
•	•	•	•
0	0	0	0
1	1	1	•
2	•	2	2
3	3	3	3
4	4	4	4

2	0	1	
•	•	•	•
0	0	•	0
1	1	•	1
2	•	2	2
3	3	3	3
4	4	4	4

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

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

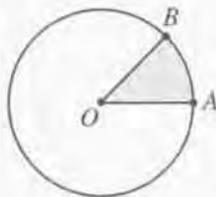
- **Decimal Answers:** If you obtain a decimal answer with more digits than the grid can accommodate, it may be either rounded or truncated, but it must fill the entire grid. For example, if you obtain an answer such as 0.6666..., you should record your result as .666 or .667. A **less accurate value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

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

2	/	3	
•	•	•	•
0	0	0	0
1	1	1	1
2	•	2	2
3	3	3	•
4	4	4	4
5	5	5	5
6	6	6	6

.	6	6	6
•	•	•	•
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	•	•	•

.	6	6	7
•	•	•	•
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	•	•	•



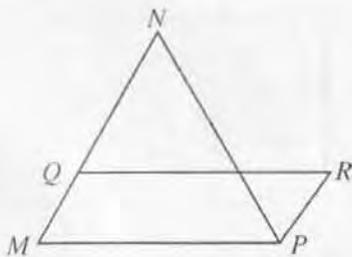
9. The circle above has center  $O$ , and  $\angle AOB$  measures  $45^\circ$ . The area of the shaded region is what fraction of the area of the circle?

10. If  $c^d = 64$ , where  $c$  and  $d$  are positive integers, what is one possible value of  $d^c$ ?



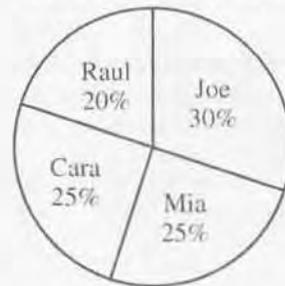
11. The ages, in years, of the 7 members of a committee are 32, 37, 24, 22, 28, 31, and  $x$ . If the median age is 28 and the oldest member is 17 years older than the youngest member, what is the value of  $x$ ?

13. When the positive integer  $h$  is divided by 10, the remainder is 6. When the positive integer  $k$  is divided by 10, the remainder is 8. What is the remainder when  $h + k$  is divided by 10?



12. In the figure above,  $MNP$  is an equilateral triangle with perimeter 18,  $MQRP$  is a parallelogram, and  $MN = 3MQ$ . What is the perimeter of  $MQRP$ ?

COUPONS COLLECTED



14. Four students each collected coupons to buy computer equipment for their school. The circle graph above shows the distribution, by percent, of all the coupons collected by the students. If each coupon had a value of \$2.50 and Joe's coupons had a total value of \$315.00, what was the total number of coupons collected by the four students?



$$x = y^2$$

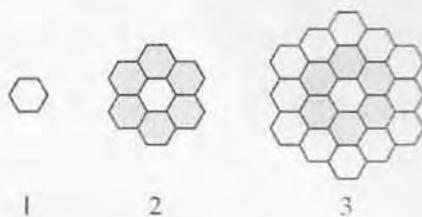
$$x = \sqrt{z}$$

$$z = 8y$$

15. In the system of equations above, if  $x > 1$ , what is the value of  $x$ ?

16. Last week the Star Bakery made 3 kinds of cakes. One half of the cakes were made with 4 eggs each, two thirds of the rest of the cakes were made with 3 eggs each, and the remaining 54 cakes were made with 2 eggs each. What was the total number of eggs used to make all of these cakes?

17. In the  $xy$ -plane, line  $\ell$  passes through the point  $(0, 1)$  and is parallel to the line with equation  $2x + 3y = 6$ . If the equation of line  $\ell$  is  $y = ax + b$ , what is the value of  $a + b$ ?



18. The sequence of figures above starts with one hexagon. Each successive figure is formed by adding a ring of identical hexagons around the preceding figure. What is the total number of hexagons in the fifth figure of the sequence?

**STOP**

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



## SECTION 3

Time — 25 minutes

23 Questions

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

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

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

**Example:**

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

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

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

- Abida quickly realized that the director was extremely -----: she and the other cast members could never anticipate how he would respond.  
(A) negative (B) boring (C) unpredictable  
(D) humorous (E) courageous
- Flannery O'Connor was ----- as a writer of ----- talent early in her career, receiving high praise for her short stories while she was still a student.  
(A) criticized . . little  
(B) challenged . . famous  
(C) celebrated . . shallow  
(D) condemned . . amazing  
(E) recognized . . considerable
- The bee hummingbird has an average length of only two inches, making it the most ----- of all hummingbird species.  
(A) voracious (B) diminutive (C) capricious  
(D) superfluous (E) prodigal
- Naturally, ----- facilitates friendships: the people we live near or interact with frequently are more likely to become our friends.  
(A) enmity (B) proximity (C) beneficence  
(D) partisanship (E) magnanimity
- Able to survive subzero temperatures, long periods of darkness, and days without food, the Arctic wolf is clearly a very ----- animal.  
(A) greedy (B) social (C) cunning  
(D) hardy (E) aggressive
- Ellen respects Gary's qualities of broad-mindedness and humanism; she cannot, however, ----- them with his ----- support of a political creed that seems to oppose precisely those qualities.  
(A) repudiate . . jingoistic  
(B) undermine . . wavering  
(C) assuage . . logical  
(D) reconcile . . dogmatic  
(E) acknowledge . . polemical
- The paucity of autobiographical documents left by the royal attendants has compelled historian Raul Salazar to ----- the motives of these courtiers from their ----- rather than from any diaries or correspondence.  
(A) stipulate . . accomplishments  
(B) contemplate . . journals  
(C) surmise . . deeds  
(D) allege . . assertions  
(E) elicit . . missives
- The painter lamented the evanescence of beauty, even though she seemed in several of her works to have ----- it as it passed and so ----- it for posterity.  
(A) seized . . absolved  
(B) vanquished . . perpetuated  
(C) arrested . . preserved  
(D) neglected . . established  
(E) dispelled . . enshrined



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 9-13 are based on the following passages.

### Passage 1

Ecotourism has been broadly defined as recreational travel that is focused on the natural environment and that seeks to minimize its impact on that environment.

Line However, there is little doubt that increasing numbers  
5 of ecotourists also pose a threat to the quality and sustainability of natural ecosystems. Numerous accounts of tourists' "loving nature to death" have been reported, and concern is growing that ecotourism is becoming  
10 nothing more than a "green" label that dresses up exploitative and destructive human behavior. Despite widespread advocacy for education as a solution to minimizing ecotourists' impacts on the natural environment, few tests of the effectiveness of educational programs in controlling tourists' behavior have been  
15 conducted.

### Passage 2

Although a substantial part of tourism is the "sun, surf, and sand" variety, the fastest-growing segment is ecotourism. There is, however, substantial concern about the potential negative impacts of ecotourism on the  
20 environment and about the necessity to plan and regulate ecotourism to prevent them. There clearly have been abuses and mismanaged activities. Better planning and regulation are essential. Yet ecotourism brings many people into environments in which they can learn about the locale  
25 and learn environmental principles that can heighten their awareness of and commitment to environmental protection in general. Increased emphasis on environmental learning as part of ecotourism could help prevent or reduce ecotourism's negative impacts.

9. The authors of both passages would most likely agree that ecotourism
- (A) is most popular in sunny coastal environments
  - (B) may harm the environment it claims to value
  - (C) may soon be more common than other types of tourism
  - (D) serves to educate the public about environmental issues
  - (E) should be tightly regulated in order to minimize its impact

10. Unlike Passage 2, Passage 1 primarily emphasizes ecotourism's

- (A) economic consequences
- (B) educational value
- (C) increasing popularity
- (D) uncertain origins
- (E) damaging effects

11. The author of Passage 2 would most likely characterize the tourists who love "nature to death" (Passage 1, line 7) as

- (A) evidence of the need for further environmental education
- (B) proof that ecotourism should be banned within fragile ecosystems
- (C) concerned about the impact of their actions
- (D) unaware of the regulations governing ecotourism
- (E) insincere in their interest in the environment

12. In line 15, "conducted" most nearly means

- (A) performed
- (B) channeled
- (C) transmitted
- (D) escorted
- (E) directed

13. Which statement best characterizes the relationship between the two passages?

- (A) Passage 2 provides a historical perspective on a situation that Passage 1 portrays as a recent problem.
- (B) Passage 2 takes a positive stance on an issue that Passage 1 presents somewhat pessimistically.
- (C) Passage 2 provides personal experience with a phenomenon Passage 1 considers theoretically.
- (D) Passage 2 suggests an innovative solution to a puzzle outlined in Passage 1.
- (E) Passage 2 provides evidence that counters a criticism raised in Passage 1.



Questions 14-23 are based on the following passage.

The following passage is adapted from a 2002 book about modern medicine.

The explanation of pain that has dominated much of medical history originated with René Descartes, more than three centuries ago. Descartes proposed that pain is a purely physical phenomenon—that tissue injury stimulates specific nerves that transmit an impulse to the brain, causing the mind to perceive pain. The phenomenon, he said, is like pulling on a rope to ring a bell in the brain. It is hard to overstate how ingrained this account has become. In everyday medicine, doctors see pain in Descartes’s terms—as a physical process, a sign of tissue injury. We look for a ruptured disk or a fracture and we try to fix what’s wrong.

The limitations of this mechanistic explanation, however, have been apparent for some time, since people with obvious injuries sometimes report feeling no pain at all. In the 1960s researchers proposed that Descartes’s model be replaced with what they called the gate control theory of pain. They argued that before pain signals reach the brain, they must first go through a gating mechanism in the spinal cord, which could ratchet them up or down. In some cases, this hypothetical gate could simply stop pain impulses from getting to the brain.

Their most startling suggestion was that what controlled the gate was not just signals from sensory nerves but also emotions and other “output” from the brain. They were saying that pulling on the rope need not make the bell ring. The bell itself—the mind—could stop it. This theory prompted a great deal of research into how such factors as mood, gender, and beliefs influence the experience of pain. In a British study, for example, researchers measured pain threshold and tolerance levels in 52 ballet dancers and 53 university students by using a common measurement known as the cold pressor test. The test is ingeniously simple. (I tried it at home myself.) After immersing your hand in body-temperature water for two minutes to establish a baseline condition, you dunk your hand in a bowl of ice water and start a clock running. You mark the time when it begins to hurt: that is your pain threshold. Then you mark the time when it hurts too much to keep your hand in the water: that is your pain tolerance. The test is always stopped at 120 seconds, to prevent injury.

The results were striking. On average female students reported pain at 16 seconds and pulled their hands out of the ice water at 37 seconds. Female dancers went almost three times as long on both counts. Men in both groups had a higher threshold and tolerance for pain, but the difference between male dancers and male nondancers

was nearly as large. What explains that difference? Probably it has something to do with the psychology of ballet dancers—a group distinguished by self-discipline, physical fitness, and competitiveness, as well as by a high rate of chronic injury. Their driven personalities and competitive culture evidently inure them to pain.

Other studies along these lines have shown that extroverts have greater pain tolerance than introverts and that, with training, one can diminish one’s sensitivity to pain. There is also striking evidence that very simple kinds of mental suggestion can have powerful effects on pain. In one study of 500 patients undergoing dental procedures, those who were given a placebo injection and reassured that it would relieve their pain had the least discomfort—not only less than the patients who got a placebo and were told nothing but also less than the patients who got a real anesthetic without any reassuring comment that it would work. Today it is abundantly evident that the brain is actively involved in the experience of pain and is no mere bell on a string. Today every medical textbook teaches the gate control theory as fact. There’s a problem with it, though. It explains people who have injuries but feel no pain, but it doesn’t explain the reverse, which is far more common—the millions of people who experience chronic pain, such as back pain, with no signs of injury whatsoever.

Gate control theory accepts Descartes’s view that what you feel as pain is a signal from tissue injury transmitted by nerves to the brain, and it adds the notion that the brain controls a gateway for such an injury signal. But in the case of something like chronic back pain, there often is no injury. So where does the pain come from? The rope and clapper are gone, but the bell is still ringing.

14. The primary purpose of the passage is to

- (A) describe how modern research has updated an old explanation
- (B) argue for the irrelevance of a popular theory
- (C) support a traditional view with new data
- (D) promote a particular attitude toward physical experience
- (E) propose an innovative treatment for a medical condition



15. Which statement best describes Descartes's theory of pain as presented in lines 3-8 ("Descartes . . . brain")?
- (A) The brain can shut pain off at will.  
 (B) The brain plays no part in the body's experience of pain.  
 (C) Pain can be triggered in many different ways.  
 (D) Pain is a highly personal phenomenon.  
 (E) Pain is an automatic response to bodily injury.
16. In line 11, "sign" most nearly means
- (A) symbol  
 (B) gesture  
 (C) image  
 (D) indication  
 (E) omen
17. The author implies that the reason the gate control theory was "startling" (line 23) was that it
- (A) offered an extremely novel explanation  
 (B) ran counter to people's everyday experiences  
 (C) undermined a respected philosopher's reputation  
 (D) was grounded in an incomprehensible logic  
 (E) was so sensible it should have been proposed centuries before
18. The author does which of the following in lines 25-27 ("They . . . it")?
- (A) Employs a previously used comparison to explain a newly introduced idea  
 (B) Cites an aforementioned study to disprove a recently published claim  
 (C) Signals a digression from the main line of the argument  
 (D) Invokes figurative language to note the drawbacks of an approach  
 (E) Uses personification to explicate the intricacies of a theory
19. In line 49, "psychology" most nearly means
- (A) mental makeup  
 (B) emotional trauma  
 (C) manipulative behavior  
 (D) clinical investigation  
 (E) underlying meaning
20. The author suggests that "extroverts" (line 55) are like ballet dancers with respect to their
- (A) reaction to social situations  
 (B) sense of group identity  
 (C) response to physical stimuli  
 (D) need for the attention of others  
 (E) peculiar attraction to suffering
21. A defender of the gate control theory would most logically argue that the "problem" (line 68) may lie not with the theory but with
- (A) medical professionals' unwillingness to accept it as a thoroughly verified hypothesis  
 (B) diagnostic tools that cannot detect the injuries causing currently inexplicable conditions  
 (C) doctors who misdiagnose intermittent pain as chronic pain  
 (D) the unfortunate tendency to medicate even minor ailments  
 (E) the willingness of people to subject themselves to stresses that lead to unconventional injuries



22. The author refers to “chronic back pain” (line 77) as an example of something that is
- (A) costly, because it afflicts millions of people
  - (B) dubious, because it is often claimed fraudulently
  - (C) puzzling, because it sometimes has no apparent cause
  - (D) frustrating, because it does not improve with therapy
  - (E) tantalizing, because it lies beyond the reach of medicine
23. The last sentence of the passage (“The rope . . . ringing”) serves primarily to express
- (A) the incomprehensibility of scientific judgments
  - (B) the inadequacy of abstract metaphors
  - (C) the futility of theoretical inquiry
  - (D) a conundrum that faces researchers
  - (E) an ambiguity at the heart of science

NOTE: The reading passages in this test are generally drawn from published works, and this material is sometimes adapted for testing purposes. The ideas contained in the passages do not necessarily represent the opinions of the College Board.

**STOP**

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



## SECTION 4

Time — 25 minutes

25 Questions

Turn to Section 4 (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) ●

- Excelling in her academic studies, Yuki earned a number of ----- and awards.  
(A) vindications (B) proposals  
(C) contingencies (D) honors  
(E) reprimands
- The newspaper's editorial section regularly publishes the ----- of those readers who are knowledgeable enough about an issue to ----- their points powerfully and articulately.  
(A) suggestions . . dismiss  
(B) analyses . . subvert  
(C) opinions . . argue  
(D) retractions . . belabor  
(E) experiments . . consider
- Doctors initially feared that antibiotics would have ----- effect, destroying healthy tissue as well as harmful bacteria.  
(A) a deleterious (B) a minuscule  
(C) a salutary (D) an antiquated  
(E) an immediate
- Native American potters often ----- the shortcuts offered by modern technology (such as the use of commercial clay, pigments, or kiln firing), instead ----- the traditional methods of their ancestors.  
(A) laud . . resuscitating  
(B) flout . . relinquishing  
(C) circumvent . . renouncing  
(D) propound . . cleaving to  
(E) eschew . . adhering to
- Tchaikovsky's *Nutcracker* leaves an ----- impression on audiences: children especially remember the dazzling costumes and stirring music.  
(A) amorphous (B) indelible (C) ineffable  
(D) innocuous (E) inscrutable



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 6-7 are based on the following passage.

A turning leaf stays green at first, then reveals splotches of yellow and red as chlorophyll gradually breaks down. Dark green seems to stay longest in the veins, outlining and defining them. During the summer, chlorophyll breaks  
 Line 5 down in the heat and light, but it is also being steadily replaced. In the fall, on the other hand, no new pigment is produced, and so we notice the other colors that were always there, although chlorophyll's shocking green hid them from view. With their camouflage gone, we see these  
 10 colors for the first time all year, and marvel, but they were always there, hidden like a vivid secret beneath the hot glowing greens of summer.

6. The passage serves primarily to
- (A) present a debate
  - (B) explain a phenomenon
  - (C) recount an experiment
  - (D) advocate an action
  - (E) refute a theory
7. According to the passage, which of the following most directly causes leaves to change their color in the fall?
- (A) Chlorophyll in the leaves beginning to break down then
  - (B) Heat and light causing new pigments to be produced
  - (C) Chlorophyll changing from green to other colors
  - (D) Existing pigments becoming more uniform
  - (E) New chlorophyll no longer being produced

Questions 8-9 are based on the following passage.

I'm watching *Sesame Street* with my daughter. Today Grover has transported us to Alaska, where a local lass is suiting up to face the Arctic chill, with the help of her  
 Line 5 mother, who sews fur pelts together to fashion a coat to repel the subzero temperatures. The child rushes out into the crisp fresh air to meet other children, laughing sweetly. It looks so wholesome, so simple, so uncomplicated. No fancy schools to get into, no apartments to compare. It looked pleasant there, out in the bleak but weirdly alluring  
 10 slate of glistening frost punctuated only by playful tykes toting their homemade lunches to school in swinging buckets.

8. The narrator would most likely characterize the depiction of Alaska on *Sesame Street* as
- (A) lurid
  - (B) idyllic
  - (C) eclectic
  - (D) nebulous
  - (E) trite
9. In context, the references to "fancy schools" and "apartments" (line 8) serve to
- (A) illustrate the glamour of urban environments
  - (B) suggest some concerns the narrator may have
  - (C) establish a contrast between past and present lifestyles
  - (D) indicate the narrator's distaste for rural living
  - (E) challenge the stereotyped view of a region



Questions 10-16 are based on the following passages.

These passages discuss Leroy “Satchel” Paige (1906 ?–1982), a star professional baseball pitcher who continued to play successfully even when he was much older than any other player. Passage 1 is adapted from a 1994 biography; Passage 2 from Paige’s autobiography.

#### Passage 1

When was Satchel Paige born? The myriad answers to that question have become one of the greatest sports enigmas of all time and play a huge part in bringing a sense of myth and mystery to Paige’s life. When the Cleveland Indians’ owner Bill Veeck signed Paige in 1948, Veeck did as much to obfuscate the age issue—an issue he stoked constantly as a public relations gimmick—as Satchel ever did himself. For aid and comfort in this, Veeck could count on the succor—witting or unwitting or perhaps both—of Lula Coleman Paige, Satchel’s mother.

Lula Paige confided to a sportswriter that her son was in fact three years older than he was thought to be; a few years later, she had another epiphany. He was, she said, two years older. This she knew because she had written down the year of his birth in her Bible, and it said, right there, plain as day, “1904.”

When Satchel Paige committed his memoirs to print in 1962, though, he wasn’t ready to go with that version. “Seems like Mom’s Bible would know,” he wrote, but she had never shown him that Bible. “Anyway,” he added, “sometimes she tended to forget things.”

But never let it be said that Satchel Paige didn’t learn from his mama. A decade and a half later, when Lula was gone, he was ready and rehearsed in the fable, only he had expanded Lula’s homily to include thirteen Bibles. . . and thirteen goats. He had, he admitted, never actually *seen* the apocryphal Bible—but that was the fault of one of the goats, which he insisted had mistaken the book for cabbage leaves and eaten it. He did know one thing, though. “That goat,” he said with piquant irony, “lived to be twenty-seven.”

#### Passage 2

After I hit the top, every couple of months just about I got my name in the papers when those writers played guessing games about when I was born. I never put a stop to it and my family and my buddies didn’t help because they kept giving different dates. You see, nobody paid much attention when kids by the bay were born.

But the government paid attention and there’s a birth certificate in Mobile, Alabama, saying I was born July 7, 1906. Now I know it’s made out for a LeRoy Page, but my folks started out spelling their name “Page” and

later stuck in the “i” to make themselves sound more high-tone.

- There are all kinds of other dates floating around, too, but I’ll go by that birth certificate. Besides, it doesn’t really make any difference how old I tell people I am. They’ve been carrying on so long about my age, nobody will believe what I say. Like that gent I ran into in 1947. He quit playing in 1910, but he swore he played against me. I just let him talk.

10. The primary purpose of both passages is to

- (A) address an uncertainty
- (B) discuss a solution
- (C) analyze two sides of a debate
- (D) illuminate a popular theory
- (E) question the importance of an idea

11. Compared with the tone of the first paragraph of Passage 1, the tone of the first paragraph of Passage 2 is more

- (A) pensive
- (B) scholarly
- (C) ambivalent
- (D) incredulous
- (E) conversational

12. The “Bible” in line 15, Passage 1, and the “birth certificate” in lines 38-39, Passage 2, are each mentioned because they provide

- (A) emotional memories
- (B) supporting evidence
- (C) personal testimonials
- (D) comic relief
- (E) government documentation

13. The author of Passage 1 presents Paige as speaking “with piquant irony” (line 30) because the story of the goat

- (A) explains why Paige did not know his exact age
- (B) presents sportswriters in an undignified light
- (C) mocks the research methods used by the press
- (D) pokes fun at all the fuss about Paige’s age
- (E) was well-known to Paige’s mother

14. In context, Paige’s reference to the writers’ “guessing games” (line 34) suggests that he viewed the debate about his age to be

- (A) exceedingly complicated
- (B) unnecessarily competitive
- (C) universally appealing
- (D) ultimately trivial
- (E) highly disrespectful



15. The author of Passage 1 would most likely respond to the claim that Paige “never put a stop to it” (lines 34-35, Passage 2) by adding that Paige
- (A) helped create stories about his birth date
  - (B) was unconcerned about others’ opinions
  - (C) was solely responsible for stirring up the debate
  - (D) did not benefit from the controversy
  - (E) was irresponsible in his actions

16. Each passage concludes with
- (A) a sincere assertion
  - (B) a humorous anecdote
  - (C) a frank observation
  - (D) an extended analogy
  - (E) an explicit appeal



Questions 17-25 are based on the following passage.

*In the following passage, adapted from a 2002 novel, a young woman named Harriet Cleve is thinking about a house, now in ruins, that once belonged to her family.*

The house, amusingly, had been called Tribulation. Judge Cleve's grandfather had named it that because he claimed the building of it had very nearly killed him.

Line 5 Nothing remained of it but the twin chimneys and the mossy brick wall—the bricks worked in a tricky herringbone pattern—leading from the foundation down to the front steps where five cracked tiles on the riser, in faded blue, spelled the letters C-L-E-V-E.

To Harriet, these five tiles were a fascinating relic of a lost civilization. To her, their fine, watery blue was the blue of wealth, of memory, of Europe, of heaven; and the Tribulation she deduced from them glowed with the phosphorescence and splendor of dream itself. In her mind, her dead ancestors moved like royalty through the rooms of this lost palace.

Apart from the tiles, few concrete artifacts of Tribulation remained. Most of the rugs and fixtures—the marble statues, the chandelier—had been carted off in crates marked Miscellaneous and sold to an antiques dealer in Greenwood who'd paid only half what they were worth.

How then to reconstruct this extinct colossus? What fossils were left, what clues had she to go on? The foundation was still there, out from town a bit. She wasn't sure exactly where, and somehow it didn't matter. Only once, on a winter afternoon long ago, had she been taken out to see it. To a small child, it gave the impression of having supported a structure far larger than a house, a city almost. She had a memory of her grandmother Edie (tomboyish in khaki trousers) jumping excitedly from room to room, her breath coming out in white clouds, pointing out the parlor, the dining room, the library—though all this was hazy.

A scattering of lesser artifacts had been salvaged from Tribulation—linens, monogrammed dishes, a ponderous rosewood sideboard, vases, china clocks, dining room chairs—and broadcast through her own house and the houses of her aunts: random fragments, a legbone here, a vertebra there, from which Harriet set about reconstructing the burned magnificence she had never seen. And these rescued artifacts beamed with a serene light all their own: the silver was heavier, the embroideries richer, the crystal more delicate, and the porcelain a finer, rarer blue. But most eloquent of all were the stories passed down to her—highly decorated items that Harriet embellished even further in her resolute myth of the enchanted alcazar, the fairy château\* that never was. She possessed, to a singular and uncomfortable degree, the narrowness of vision that enabled all the Cleves to forget what they didn't want to

remember and to exaggerate or otherwise alter what they couldn't forget; and in restringing the skeleton of the extinct monstrosity that had been her family's fortune, she was unaware that some of the bones had been tampered with; that others belonged to different animals entirely; that a great many of the more massive and spectacular bones were not bones at all but plaster-of-Paris forgeries. (The famous Bohemian chandelier, for instance, had not come from Bohemia at all; it was not even made of crystal; the judge's mother had ordered it from a catalog.) Least of all did she realize that constantly in the course of her labors she trod back and forth on certain humble, dusty fragments that, had she bothered to examine them, afforded the true—and rather disappointing—key to the entire structure. The mighty, thundering, opulent Tribulation that she had so laboriously reconstructed in her mind was not a replica of any house that had ever existed but a chimera, a fairy tale.

\* Alcazar is a Spanish palace; a château is a large French country house.

17. The primary focus of the passage is on how

- (A) Harriet rejects her youthful illusions
- (B) Harriet interprets her family's history
- (C) Harriet discovers heirlooms at her family's home
- (D) the Cleves maintained their lavish lifestyle
- (E) each of the Cleves responded to misfortune

18. Lines 9-15 ("To . . . palace") characterize Harriet primarily as

- (A) enthusiastic about art and antiques
- (B) inclined to be analytical and detail oriented
- (C) troubled by her family's legacy
- (D) fascinated by cultural history
- (E) prone to romantic reverie

19. Lines 22-24 ("The foundation . . . matter") suggest what about Harriet's attitude toward visiting the house?

- (A) She does not believe there is anything left of the house.
- (B) She worries about trespassing on someone else's property.
- (C) She feels no need to revisit the physical remains of the house.
- (D) She has no interest in rebuilding the family estate.
- (E) She is uneasy about exploring a deserted neighborhood.



20. In line 36, the word “broadcast” suggests that the artifacts were
- (A) displayed openly
  - (B) advertised publicly
  - (C) announced loudly
  - (D) glorified excessively
  - (E) distributed widely
21. In what way is the “myth” mentioned in line 45 “resolute”?
- (A) It has endured over many generations of Cleves.
  - (B) It has not been refuted by historical records.
  - (C) It demonstrates Harriet’s steadfast support of family members.
  - (D) It reflects Harriet’s determination to maintain a certain view.
  - (E) It underscores the universal appeal of a type of story.
22. In lines 46-50 (“She . . . forget”), the narrator implies that the Cleve family employed memory primarily as a means of
- (A) enhancing mental alertness
  - (B) protecting cherished beliefs
  - (C) healing family divisions
  - (D) inspiring family achievements
  - (E) reinforcing a fatalistic worldview
23. The narrator’s account of the “Bohemian chandelier” (lines 55-58) serves to
- (A) provide an example of a recurrent phenomenon
  - (B) indicate surprise about an unexpected discovery
  - (C) offer an explanation for an apparent incongruity
  - (D) illustrate the source of a profound disappointment
  - (E) suggest the great value of an inherited artifact
24. The narrator suggests that the “key” (line 62) would have given Harriet
- (A) unlimited access to the house
  - (B) a false solution to the mystery
  - (C) a realistic understanding of the past
  - (D) an opportune moment to pursue new interests
  - (E) a strong obligation to keep the family’s secret
25. The final sentence of the passage (lines 62-65) indicates what about the house Harriet’s grandfather built?
- (A) It was not as much of a tribulation as Harriet has always been told.
  - (B) It had never actually been owned by Harriet’s family.
  - (C) It was not as palatial as Harriet imagines it to be.
  - (D) It was deliberately destroyed by Harriet’s family.
  - (E) It would have been a very comfortable home for Harriet as a child.

**STOP**

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

**SECTION 5**  
**Time — 25 minutes**  
**20 Questions**

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

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

Notes

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

Reference Information



$$A = \pi r^2$$

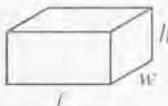
$$C = 2\pi r$$



$$A = \ell w$$



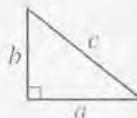
$$A = \frac{1}{2}bh$$



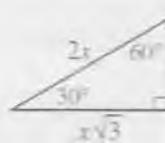
$$V = \ell wh$$



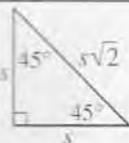
$$V = \pi r^2 h$$



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



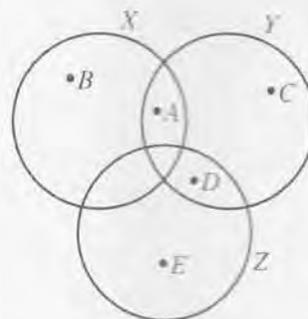
Special Right Triangles



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

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

1. If  $x + y = z$  and  $z = 8$ , what is the value of  $x + y + z$ ?
- (A) 8  
 (B) 12  
 (C) 16  
 (D) 24  
 (E) 64

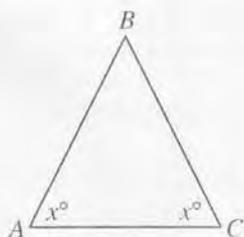


2. In the figure above, which of the labeled points is inside circle  $X$  and circle  $Y$  but not inside circle  $Z$ ?
- (A) A  
 (B) B  
 (C) C  
 (D) D  
 (E) E

GO ON TO THE NEXT PAGE

3. The length of one piece of rope is 4 inches more than 2 times the length of a shorter piece. If the length of the longer piece is 26 inches, what is the length, in inches, of the shorter piece?

- (A) 9
- (B) 11
- (C) 13
- (D) 15
- (E) 17



Note: Figure not drawn to scale.

4. In the triangle above,  $AC = 5$  and  $BC = 7$ . What is the length of  $\overline{AB}$ ?

- (A) 4
- (B) 5
- (C) 6
- (D) 7
- (E) 8

5. If  $x$  and  $y$  are positive integers and  $3x + 5y = 18$ , what is the value of  $x$ ?

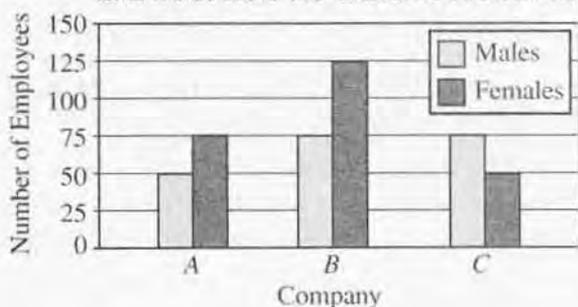
- (A) 1
- (B) 2
- (C) 3
- (D) 4
- (E) 5

$x$	$f(x)$
-1	1
-2	-2
-3	4
-5	6
-6	5

6. The function  $f$  is defined by the table above. For which value of  $x$  does  $f(x) = |x|$ ?

- (A) -1
- (B) -2
- (C) -3
- (D) -5
- (E) -6

EMPLOYMENT AT THREE COMPANIES



7. The graph above shows the numbers of employees at companies A, B, and C. The companies are to be combined to form a new company. All current employees will work for the new company, and no new ones will be hired. What will be the ratio of the number of males to the number of females in the new company?
- (A) 2:3  
 (B) 3:2  
 (C) 3:5  
 (D) 4:5  
 (E) 5:4

CAFFEINE CONTENT OF DIFFERENT BEVERAGES

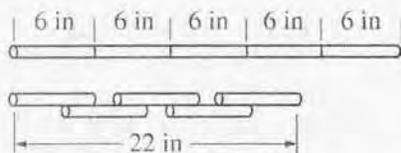
Beverage	Size	Amount of Caffeine
Coffee	6 oz	60 mg
Tea	8 oz	70 mg
Cola	12 oz	45 mg

9. Based on the table above, which of the following lists the beverages from least to greatest caffeine content per ounce?
- (A) Coffee, Tea, Cola  
 (B) Coffee, Cola, Tea  
 (C) Tea, Coffee, Cola  
 (D) Tea, Cola, Coffee  
 (E) Cola, Tea, Coffee

8. If  $\frac{a^2b}{2a} = \frac{3}{2}$ , then  $ab =$
- (A) 3  
 (B)  $\frac{3}{2}$   
 (C)  $\frac{4}{3}$   
 (D)  $\frac{3}{4}$   
 (E)  $\frac{1}{3}$

$$y = x + 2k$$

10. In the equation above,  $k$  is a constant. If  $y = 2$  when  $x = 5$ , what is the value of  $x$  when  $y = 5$ ?
- (A) -3  
 (B) -2  
 (C) 2  
 (D) 3  
 (E) 8



11. Five 6-inch rods are shown lying end-to-end in the top row of the figure above. If the total span of the rods is reduced to 22 inches by overlapping the rods equally as shown in the bottom row of the figure, how long in inches is each of the overlaps?

(A) 8  
(B) 6  
(C) 4  
(D) 2  
(E) 1

12. If  $x^2 + 8x \leq -15$ , which of the following is a possible value of  $x$ ?

(A) -6  
(B) -4  
(C) -2  
(D) 0  
(E) 2

13. Machine  $A$  produces chairs at a constant rate of 6 chairs per hour, and machine  $B$  produces chairs at a constant rate of 8 chairs per hour. How many more minutes does it take machine  $A$  to produce 32 chairs than it takes machine  $B$ ?

(A) 20  
(B) 60  
(C) 80  
(D) 90  
(E) 120

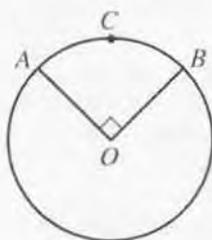
14. The measure of the largest angle in a certain triangle is twice the sum of the measures of the remaining angles. What is the measure of the largest angle?

(A)  $45^\circ$   
(B)  $60^\circ$   
(C)  $90^\circ$   
(D)  $120^\circ$   
(E)  $150^\circ$



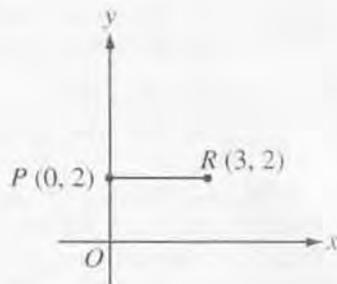
15. If  $m > 0$ , which of the following is closest in value to  $0.56m$ ?

- (A)  $\frac{m}{56}$   
 (B)  $\frac{m}{6}$   
 (C)  $\frac{m}{5}$   
 (D)  $\frac{m}{2}$   
 (E)  $\frac{5m}{6}$



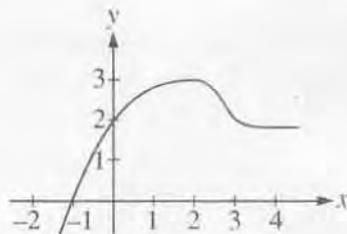
16. In the figure above, the circle has center  $O$  and radius 6. What is the length of arc  $\widehat{ACB}$ ?

- (A)  $\pi\sqrt{2}$   
 (B)  $1.5\pi$   
 (C)  $3\pi$   
 (D)  $3\sqrt{2}$   
 (E)  $6\sqrt{2}$



17. In the figure above, points  $P$  and  $R$  are the endpoints of one of the diagonals of a square (not shown). Which of the following are the coordinates of one of the other vertices of this square?

- (A)  $(1, 1.5)$   
 (B)  $(1, 3.5)$   
 (C)  $(1.5, 1.5)$   
 (D)  $(1.5, 2.5)$   
 (E)  $(1.5, 3.5)$



18. A portion of the graph of the function  $f$  is shown in the  $xy$ -plane above. What is the  $y$ -intercept of the graph of the function  $g$  defined by  $g(x) = f(x) + 1$ ?

- (A)  $-2$   
 (B)  $0$   
 (C)  $1$   
 (D)  $2$   
 (E)  $3$

$$\frac{1}{(1)(2)}, \frac{1}{(2)(3)}, \frac{1}{(3)(4)}$$

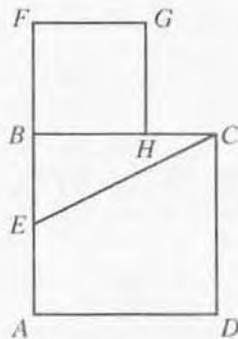
19. The first three terms of a sequence are given above.

The  $n$ th term of the sequence is  $\frac{1}{(n)(n+1)}$ , which

is equal to  $\frac{1}{n} - \frac{1}{n+1}$ . What is the sum of the first

50 terms of this sequence?

- (A) 1  
(B)  $\frac{50}{51}$   
(C)  $\frac{49}{50}$   
(D)  $\frac{24}{50}$   
(E)  $\frac{1}{(50)(51)}$



20. In the figure above,  $ABCD$  and  $BFGH$  are squares,  $E$  is the midpoint of  $\overline{AB}$ , and  $FE = CE$ . If  $AD = 1$ , what is the length of  $\overline{BH}$ ?

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

**STOP**

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



## SECTION 7

Time — 25 minutes

35 Questions

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

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

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

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

**EXAMPLE:**

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

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

(A) ● (C) (D) (E)

1. Below the bend, the river, flowing more swiftly, as it cuts through sand hills covered with pine trees.

- (A) river, flowing more swiftly, as it cuts
- (B) river, flowing more swiftly, cutting
- (C) river flows more swiftly and it is cutting
- (D) river flows more swiftly as it cuts
- (E) river flows more swiftly, it cuts

2. Although the Milky Way Galaxy is now two and a half million light-years away from the Andromeda Galaxy, but it is predicted by scientists that the two galaxies will merge into one in a few billion years.

- (A) but it is predicted by scientists that
- (B) but scientists predict
- (C) scientists who predict
- (D) scientists predicting
- (E) scientists predict that

3. After receiving a degree in agriculture from Iowa State Agricultural and Mechanical College, a faculty position at the college was accepted by George Washington Carver, and he took charge of the college greenhouses.

- (A) a faculty position at the college was accepted by George Washington Carver, and he took
- (B) a faculty position was accepted by George Washington Carver at the college, he took
- (C) George Washington Carver accepted a faculty position at the college and took
- (D) George Washington Carver, accepting a position on the faculty at the college, taking
- (E) George Washington Carver, who accepted a faculty position at the college and took

4. Although Debussy and Ravel are generally considered an impressionist composer, their compositional styles are quite distinct from one another.

- (A) an impressionist composer, their compositional styles are
- (B) to be an impressionist composer, their compositional style is
- (C) as having been impressionist composers, their compositional style is
- (D) impressionist composers, their compositional styles are
- (E) impressionist composers, whose compositional styles are



5. The underside of the starfish is covered with hundreds of tube feet, which it uses to walk around, for attaching tightly to rocks, and holding on to prey.
- (A) to walk around, for attaching tightly to rocks, and holding  
(B) to walk around, for its tight attachment to rocks, and to hold  
(C) for walking around, to attach tightly to rocks, and holding  
(D) for walking around, attaching tightly to rocks, and holding  
(E) for walking around, it can also attach tightly to rocks and hold
6. In 1853 African American residents founded the San Francisco Athenaeum; its library and museum served as the hub of Black intellectual life in the region.
- (A) its library and museum served  
(B) its library and museum, they served  
(C) their library and museum serving  
(D) the library and museum will be to serve  
(E) the library and the museum of it serving
7. Television weather forecasters sometimes overdramatize the severity of an approaching snowstorm, cause segments of their audience unnecessary anxiety.
- (A) cause  
(B) which cause  
(C) causing  
(D) they cause  
(E) yet caused
8. Were I to be granted a whole month in which to do whatever I wanted, I would travel throughout Africa and see as much of that continent as I could.
- (A) Were I to be granted  
(B) If I would have been granted  
(C) With me being granted  
(D) Granting me  
(E) By being granted
9. Only after reading it carefully several times was the poem beginning to make sense to me.
- (A) was the poem beginning to make sense to me  
(B) was when I began to make sense of the poem  
(C) I began making sense of the poem  
(D) did the poem begin making sense to me  
(E) did I begin to make sense of the poem
10. He presented himself before the judge, knowing full well that he was guilty yet hoping for leniency.
- (A) yet hoping  
(B) yet he hoped  
(C) and he hoped  
(D) and yet hoped  
(E) and he was hoping
11. They had never before been in a museum with such an extensive collection, they had a difficult time deciding how to make the most of the limited time they could spend there.
- (A) They had never before been  
(B) They never before were  
(C) Never before had they been  
(D) Never before having been  
(E) Because of never before being



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. Unlike bears and some other carnivorous animals that  
 A  
can survive on plants when meat is scarce, wild cats  
 B C  
 must capture prey or to go hungry. No error  
 D E

13. When a steel mill is shut down because its production  
 A  
 methods have become antiquated, what is lost is not  
 B  
only jobs and also a piece of industrial history.  
 C D  
No error  
 E

14. At least one course in statistics is recommended for  
them who plan to become journalists, because they  
 A B

will often need to evaluate whether information  
based on statistics is dependable. No error  
 C D E

15. Coffee tastes bitterly and gives off a burned smell if  
 A B  
 it is overheated or brewed for too long. No error  
 C D E

16. The Crenshaw melon, named after the person  
 A  
which developed it, is a cross between a cantaloupe  
 B C D  
 and a honeydew melon. No error  
 E

17. Few people could have guessed, as they watch  
 A  
 Anna win the tennis match with apparent ease,  
 B  
how pessimistic she had been about her chances  
 C  
of beating her opponent. No error  
 D E



18. While many people believe that television  
A  
commercials are quite harmful to children,  
others contend that such advertising has  
B C  
very little or no negative effect. No error  
D E
19. The European magpie, a bird well known  
for their tendency to steal shiny objects, is  
A B  
common in European folklore, with many  
C D  
superstitions surrounding it. No error  
E
20. Maxine Hong Kingston's surprisingly unconventional  
A  
book *The Woman Warrior* blends Chinese myth with  
B  
American reality, fiction with fact, and memory with  
C  
imagination to create a fascinating tale. No error  
D E
21. Ancient documents wrote on vellum, a form of fine  
A  
parchment made of animal hides, must be stored under  
carefully controlled conditions because changes  
B  
in humidity can be damaging. No error  
C D E
22. The aquatic weed called "giant salvinia," which  
grows far more rapidly than do plants native to the  
A B  
lakes it infests, threaten many freshwater ecosystems.  
C D  
No error  
E
23. If it is confirmed experimentally, the theories of  
A B  
Lisa Randall and Raman Sundrum will be among  
C  
the greatest advances in physics of the past  
D  
few decades. No error  
E
24. One of the most visible symbols of increased  
A B  
European unity is the Chunnel, a 31-mile tunnel  
C  
beneath the English Channel that took six years  
to complete. No error  
D E
25. In his lecture on improving the health of children,  
A  
Dr. Hernandez expressed the opinion that kids  
B  
should spend less time in his or her room and  
C D  
more time outdoors. No error  
E



26. The accelerating pace of both science and technology

have forced many people to consider questions that  
A B

formerly were the special domain of philosophers.  
C D

No error  
E

27. Most fashion designers agree that diligence, creativity,  
A

and a keen understanding of popular tastes are  
B

a requirement for sustained success in their  
C D

profession. No error  
E

28. The bright orange and black wings of the monarch

butterfly warns predators that the insect is toxic  
A B C

if eaten. No error  
D E

29. Interest to revive the ancient Olympic Games as  
A B

an international event grew when the ruins of the  
C

ancient city of Olympia were uncovered by German  
D

archaeologists in the mid-nineteenth century. 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) The invention of the bicycle in the nineteenth century did more than give people a new kind of transportation: it triggered social changes, especially for women.

(2) The earliest bicycles had been difficult to ride and dangerous. (3) In the 1890s the "safety bicycle," with gears, pedals, and reasonably reliable brakes, was introduced and began to be mass-produced. (4) The improved bicycle caught on quickly as Europe and the United States experienced a cycling craze.

(5) The wide availability of a relatively inexpensive mode of transportation had a particularly dramatic impact on the lives of women. (6) Women had traditionally been much less mobile than men. (7) Women's enthusiastic adoption of the bicycle was such a notable social phenomenon that the bicycle came to be associated with the new "emancipated woman." (8) Suffragists, who campaigned for women's right to vote, dubbed the bicycle a "freedom machine" for women.

(9) According to one estimate, there are over a billion bicycles in use worldwide today. (10) The idea of riding a bicycle might not seem very radical today, but in the nineteenth century a bicycle-riding woman was defying many stereotypes. (11) For one thing, the bicycle is powered by the rider's own muscles. (12) Medical authorities had long claimed that "ladies" were naturally delicate and could not tolerate physical exertion without becoming ill. (13) All of a sudden, women are exercising vigorously, pedaling their bicycles without showing any signs of harm. (14) Bicycling required less constricting clothing than most women had in the nineteenth century. (15) Instead of the voluminous skirts then in fashion, these cyclists adopted the "Bloomer suit," named for its inventor Amelia Bloomer: loose-fitting pants that gathered at the ankle, worn under a knee-length skirt.



30. In context, which would be the best revision of the underlined part of sentence 3 (reproduced below) ?

*In the 1890s the "safety bicycle," with gears, pedals, and reasonably reliable brakes, was introduced and began to be mass-produced.*

- (A) In turn, during the 1890s,
  - (B) During the 1890s, however,
  - (C) As a matter of fact, it was during the 1890s that
  - (D) Despite these issues in the 1890s,
  - (E) Significantly, only during the 1890s
31. Which of the following is the most effective way to combine sentences 5 and 6 (reproduced below) at the underlined part?
- The wide availability of a relatively inexpensive mode of transportation had a particularly dramatic impact on the lives of women. Women had traditionally been much less mobile than men.*
- (A) women's lives that
  - (B) women's lives because they
  - (C) women, their lives
  - (D) the lives of women, who
  - (E) the lives of women, although they
32. In context, which is best to do with sentence 9 (reproduced below) ?
- According to one estimate, there are over a billion bicycles in use worldwide today.*
- (A) Make it the first sentence of the passage.
  - (B) Connect it with sentence 10 using a semicolon.
  - (C) Add "for example" after "According to one estimate".
  - (D) Make it the last sentence of the passage.
  - (E) Delete it from the passage.
33. In context, which of the following is best to do with sentence 13 (reproduced below) ?
- All of a sudden, women are exercising vigorously, pedaling their bicycles without showing any signs of harm.*
- (A) Delete "All of a sudden,".
  - (B) Change "are" to "were".
  - (C) Change "exercising" to "exerting".
  - (D) Change "without showing" to "and do not show".
  - (E) Insert "however" at the end of the sentence.

34. In context, which is the best version of sentence 14 (reproduced below) ?

*Bicycling required less constricting clothing than most women had in the nineteenth century.*

- (A) (As it is now)
  - (B) While the nineteenth century required constricting clothing for women, bicycling put a stop to that.
  - (C) It was undeniable that nineteenth-century women required less constricting clothing than they formerly had.
  - (D) Even more surprising, women required less constricting clothing than they had in the nineteenth century.
  - (E) Furthermore, because bicycling required less constricting clothing, nineteenth-century women cyclists needed a new mode of dress.
35. In context, which of the following would be the best concluding sentence for the passage?
- (A) Today, both women and men compete in bicycle races, and women cyclists have set records for speed and endurance.
  - (B) In conclusion, women today have a level of control over their lives that nineteenth-century women could only dream about.
  - (C) Since their introduction in the late nineteenth century, bicycles have become more popular and are now used for sport, transportation, policing, and mail delivery.
  - (D) The bloomer-wearing, bicycle-riding modern woman scandalized the conservative forces in society, but for many women the bicycle was the beginning of a long ride toward equality.
  - (E) Nowadays, cyclists prefer lightweight, nonbinding spandex shorts and tops; it is difficult to imagine riding a bicycle in the clothing worn by cyclists in the nineteenth century.

**STOP**

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



## SECTION 8

Time — 20 minutes

16 Questions

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

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

Notes

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

Reference Information



$$A = \pi r^2$$

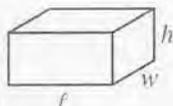
$$C = 2\pi r$$



$$A = \ell w$$



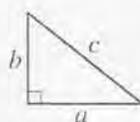
$$A = \frac{1}{2}bh$$



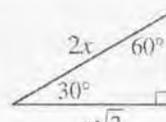
$$V = \ell wh$$



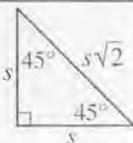
$$V = \pi r^2 h$$



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



Special Right Triangles

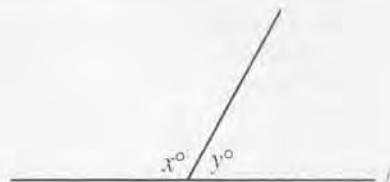


The number of degrees of arc in a circle is 360.

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

1. If Stan gathered  $x$  tomatoes every day for 3 days, how many tomatoes did he gather?

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



2. In the figure above, what is  $y$  in terms of  $x$ ?

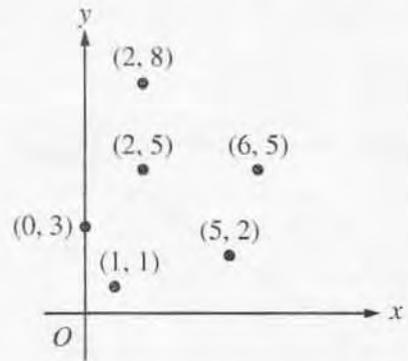
- (A)  $90 - x$   
 (B)  $90 - \frac{x}{2}$   
 (C)  $90 + \frac{x}{2}$   
 (D)  $120 - x$   
 (E)  $180 - x$

GO ON TO THE NEXT PAGE



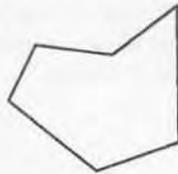
3. If  $2y \geq 3$  and  $3y < 7$ , which of the following could be the value of  $y$ ?

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

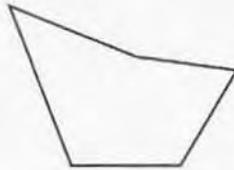


4. The points indicated above could be the vertices of which of the following polygons?

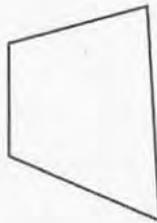
(A)



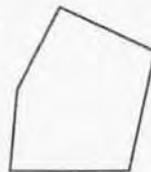
(B)



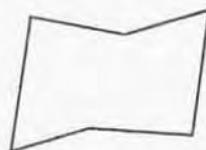
(C)



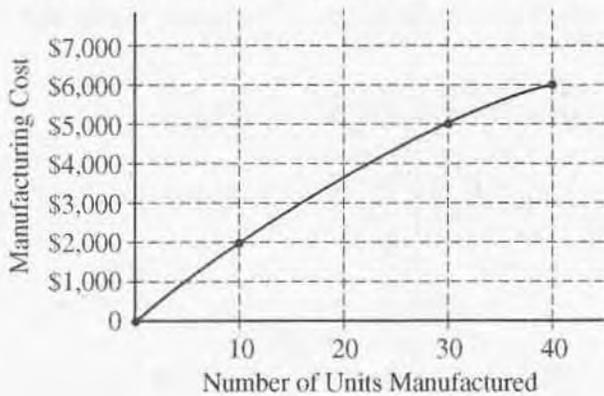
(D)



(E)



GO ON TO THE NEXT PAGE

TOTAL COST TO MANUFACTURE PRODUCT  $P$ 

5. The graph above shows the total cost to manufacture product  $P$  based on the number of units manufactured. What is the approximate cost to manufacture 35 units of product  $P$ ?
- (A) \$3,500  
 (B) \$4,700  
 (C) \$5,200  
 (D) \$5,700  
 (E) \$6,100

6. If  $10 - 10x = 10$ , what is the value of  $10 + 10x$ ?

- (A) 10  
 (B) 20  
 (C) 90  
 (D) 100  
 (E) 110

1, 2, 3, 4, 5, 6, 7

7. How many pairs of different numbers can be chosen from the list above so that the sum of the two numbers is even? (Note: The pair 1, 3 is the same as the pair 3, 1.)
- (A) 6  
 (B) 9  
 (C) 10  
 (D) 15  
 (E) 21

GO ON TO THE NEXT PAGE



8. In 1997 it was predicted that in the year 2020 the total school-age population of Country  $X$  will be approximately 42 million. This represents a 20 to 25 percent increase from the 1997 school-age population. Which of the following could have been the 1997 school-age population of Country  $X$ ?
- (A) 20 million  
(B) 24 million  
(C) 28 million  
(D) 34 million  
(E) 38 million
9. If the perimeter of a triangle is  $p$  and the length  $x$  of one of its sides is the average (arithmetic mean) of the lengths of the other two sides, what is  $x$  in terms of  $p$ ?
- (A)  $\frac{1}{6}p$   
(B)  $\frac{1}{4}p$   
(C)  $\frac{1}{3}p$   
(D)  $\frac{1}{2}p$   
(E)  $\frac{2}{3}p$
10. If  $n$  is a two-digit number whose units digit is 4 times its tens digit, which of the following statements must be true?
- (A)  $n$  is a multiple of 4.  
(B)  $n$  is a multiple of 7.  
(C)  $n$  is a multiple of 10.  
(D)  $n$  is greater than 40.  
(E)  $n$  is less than 20.



11. Square tiles measuring  $\frac{1}{2}$  foot by  $\frac{1}{2}$  foot are sold in boxes containing 10 tiles each. What is the least number of boxes of tiles needed to cover a rectangular floor that has dimensions 12 feet by 13 feet?

(A) 7  
(B) 16  
(C) 32  
(D) 57  
(E) 63

13. Of 6 radios in a store, 2 are defective and 4 are not. A customer chooses 2 of these radios at random. If the first radio chosen is not defective, what is the probability that the second radio chosen is also not defective?

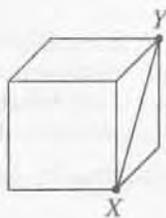
(A)  $\frac{1}{10}$   
(B)  $\frac{2}{5}$   
(C)  $\frac{1}{2}$   
(D)  $\frac{3}{5}$   
(E)  $\frac{2}{3}$

---

$$y = -2(x - 2)^2 + 3$$

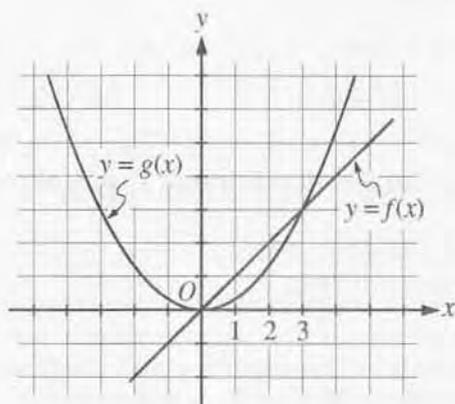
12. In the  $xy$ -plane, line  $\ell$  passes through the point  $(4, -5)$  and the vertex of the parabola with the equation above. What is the slope of line  $\ell$ ?

(A)  $-4$   
(B)  $-\frac{1}{4}$   
(C)  $0$   
(D)  $\frac{1}{4}$   
(E)  $4$



14. In the figure above, segment  $\overline{XY}$  joins two vertices of the cube. If the length of  $\overline{XY}$  is  $\sqrt{2}$ , what is the volume of the cube?

- (A) 1  
(B) 2  
(C)  $2\sqrt{2}$   
(D)  $3\sqrt{2}$   
(E) 8



15. In the  $xy$ -plane above, the graph of the function  $f$  is a line, and the graph of the function  $g$  is a parabola. The graphs of  $f$  and  $g$  intersect at  $(0, 0)$  and  $(3, 3)$ . For which of the following values of  $a$  is  $g(a) - f(a) < 0$ ?

- (A) 0  
(B) 2  
(C) 4  
(D) 5  
(E) 6

16. For nonzero numbers  $w$ ,  $x$ , and  $y$ , if  $x$  is twice  $y$  and  $y$  is  $\frac{1}{3}$  of  $w$ , what is the ratio of  $w^2$  to  $x^2$ ?

- (A) 2 to 3  
(B) 4 to 9  
(C) 3 to 2  
(D) 9 to 4  
(E) 9 to 16

**STOP**

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



## SECTION 9

Time — 20 minutes

19 Questions

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

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

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

**Example:**

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

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

(A) (B) (C) (D) ●

- During the Han dynasty, trade expansion to distant Persia allowed the Chinese to ----- their ----- of other cultures.
 

(A) deny . . understanding  
(B) increase . . awareness  
(C) discourage . . development  
(D) enhance . . dismantling  
(E) strengthen . . avoidance
- The ambitious politician promoted the tax cuts not so much for the citizens' ----- as for his own ----- .
 

(A) reception . . guarantee  
(B) welfare . . reputation  
(C) disbelief . . goodness  
(D) treachery . . persistence  
(E) prosperity . . downfall
- Although certainly talented, the child could not really be called -----; there was nothing particularly ----- about his achievements.
 

(A) a virtuoso . . precocious  
(B) a genius . . fanatical  
(C) a natural . . affected  
(D) a prodigy . . exceptional  
(E) an upstart . . modest
- The tranquil story recounted by Ezra Jack Keats in *The Snowy Day* ----- the calm presence of the book's illustrations: both ----- the silence of a snow-covered landscape.
 

(A) captures . . disrupt  
(B) masks . . betray  
(C) mirrors . . evoke  
(D) undercuts . . exude  
(E) violates . . embody
- Jean-Michel Basquiat's ascendancy was truly -----; his provocative art suddenly propelled him from New York street artist to international celebrity.
 

(A) piecemeal (B) digressive (C) meteoric  
(D) conventional (E) holistic
- Because these speeding particles' compositions were quite different from those of other low-energy cosmic rays, scientists dubbed them ----- cosmic rays.
 

(A) intermittent (B) transitory (C) resilient  
(D) anomalous (E) mercurial



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

**Questions 7-19 are based on the following passage.**

*In this passage adapted from a 1999 memoir by a published writer, the author reflects on one of her childhood experiences with her grandmother in the 1950s.*

My first commissioned work was to write letters for her. “You write for me, honey?” she would say, holding out a ballpoint she had been given at a grocery store promotion, clicking it like a castanet. My fee was cookies and milk, payable before, during, and after completion of the project.

I settled down at her kitchen table while she rooted around the drawer where she kept coupons and playing cards and pieces of stationery. The paper was so insubstantial even ballpoint ink seeped through the other side. “That’s OK,” she would say. “We only need one side.”

True. In life she was a gifted gossip, unfurling an extended riff of chatter from a bare motif of rumor. But her writing style displayed a brevity that made Hemingway’s prose look like nattering garrulity. She dictated her letters as if she were paying by the word.

“Dear Sister,” she began, followed by a little time-buying cough and throat clearing. “We are all well here.” Pause. “And hope you are well too.” Longer pause. the steamy broth of inspiration heating up on her side of the table. Then, in a lurch, “Winter is hard so I don’t get out much.”

This was followed instantly by an unconquerable fit of envy: “Not like you in California.” Then she came to a complete halt, perhaps demoralized by this evidence that you can’t put much on paper before you betray your secret self, try as you will to keep things civil.

She sat, she brooded, she stared out the window. She was locked in the perverse reticence of composition. She gazed at me, but I understood she did not see me. She was looking for her next thought. “Read what I wrote,” she would finally say, having lost not only what she was looking for but what she already had pinned down. I went over the little trail of sentences that led to her dead end.

More silence, then a sigh. “Put ‘God bless you,’” she said. She reached across to see the lean rectangle of words on the paper. “Now leave some space,” she said, “and put ‘Love.’” I handed over the paper for her to sign.

She always asked if her signature looked nice. She wrote her one word—Teresa—with a flourish. For her, writing was painting, a visual art, not declarative but sensuous.

She sent her lean documents regularly to her only remaining sister, who lived in Los Angeles, a place she had not visited. They had last seen each other as children in their village in Central Europe. But she never mentioned

that or anything from that world. There was no taint of reminiscence in her prose.

Even at ten I was appalled by the minimalism of these letters. They enraged me. “Is that all you have to say?” I would ask her, a nasty edge to my voice.

It wasn’t long before I began padding the text. Without telling her, I added an anecdote my father had told at dinner the night before, or I conducted this unknown reader through the heavy plot of my brother’s attempt to make first string on the St. Thomas hockey team. I allowed myself a descriptive aria on the beauty of Minnesota winters (for the benefit of my California reader who might need some background material on the subject of ice hockey). A little of this, a little of that—there was always something I could toss into my grandmother’s meager soup to thicken it up.

Of course, the protagonist of the hockey tale was not “my brother.” He was “my grandson.” I departed from my own life without a regret and breezily inhabited my grandmother’s. I complained about my hip joint, I bemoaned the rising cost of hamburger, and hinted at the inattention of my son’s wife (that is, my own mother, who was next door, oblivious to treachery).

In time, my grandmother gave in to the inevitable. Without ever discussing it, we understood that when she came looking for me, clicking her ballpoint, I was to write the letter, and her job was to keep the cookies coming. I abandoned her skimpy floral stationery which badly cramped my style, and thumped down on the table a stack of ruled  $8\frac{1}{2} \times 11$ .

“Just say something interesting,” she would say. And I was off to the races.

I took over her life in prose. Somewhere along the line, though, she decided to take full possession of her sign-off. She asked me to show her how to write “Love” so she could add it to “Teresa” in her own hand. She practiced the new word many times on scratch paper before she allowed herself to commit it to the bottom of a letter.

But when she finally took the leap, I realized I had forgotten to tell her about the comma. On a single slanting line she had written: *Love Teresa*. The words didn’t look like a closure, but a command.

7. In the opening paragraph, the author characterizes writing letters for her grandmother as a

- (A) privilege
- (B) favor
- (C) business transaction
- (D) dreaded responsibility
- (E) punishment



8. In line 26, “betray” most nearly means
- (A) tempt
  - (B) deceive
  - (C) desert
  - (D) disappoint
  - (E) reveal
9. The sentence beginning with “More silence” (line 35) primarily emphasizes the grandmother’s sense of
- (A) anticipation
  - (B) resignation
  - (C) despair
  - (D) satisfaction
  - (E) resolve
10. The sentence in lines 40–42 (“For her . . . sensuous”) serves primarily to explain why the grandmother
- (A) asked her granddaughter to reread her letters
  - (B) had not felt it necessary to learn to write
  - (C) was very particular about the style of her stationery
  - (D) sought approval regarding the appearance of her signature
  - (E) thought it was important for her granddaughter to write well
11. The granddaughter’s question in line 50 primarily conveys her
- (A) belief that her grandmother’s letters did not offer enough details
  - (B) determination to include everything her grandmother wanted to say
  - (C) resentment about having to write letters for her grandmother
  - (D) irritation that her grandmother was avoiding certain painful subjects
  - (E) sense that her grandmother did not write to her sister often enough
12. The granddaughter’s actions in lines 52–62 (“It . . . up”) are motivated by her desire to
- (A) have a more interesting life
  - (B) write a more entertaining letter
  - (C) make her grandmother happy
  - (D) encourage her grandmother’s sister to visit
  - (E) develop her own skills as a writer
13. The parenthetical reference in lines 58–60 serves to
- (A) explain why the grandmother envied her sister in California
  - (B) suggest that the child found writing letters for her grandmother to be rewarding
  - (C) give an example of a subject that the grandmother asked her granddaughter to write about
  - (D) highlight the granddaughter’s desire to have others appreciate her writing skills
  - (E) emphasize the granddaughter’s sense of tailoring her writing to an audience
14. In line 62, “meager soup” refers to the
- (A) emotional ties between family members
  - (B) grandmother’s modest lifestyle
  - (C) grandmother’s limited writing skills
  - (D) substance of the grandmother’s letter
  - (E) meals served by the grandmother
15. The granddaughter’s attitude in lines 63–69 (“Of course . . . treachery”) is best described as
- (A) guilty
  - (B) wary
  - (C) conscientious
  - (D) optimistic
  - (E) self-satisfied
16. The granddaughter used “ruled 8½ x 11” (line 76) paper because she
- (A) disliked the floral pattern on her grandmother’s stationery
  - (B) began to view the letter writing as an onerous assignment
  - (C) assumed that she would teach her grandmother how to write
  - (D) required more space than her grandmother’s stationery provided
  - (E) anticipated having to write multiple letters for her grandmother
17. The phrase “off to the races” (line 78) indicates that the author
- (A) viewed writing as a game
  - (B) plunged enthusiastically into her task
  - (C) rushed to finish the letters as quickly as possible
  - (D) avoided a direct request
  - (E) became extremely competitive



18. Lines 79-82 ("I took . . . hand") suggest that the grandmother wanted to learn how to write "Love" because she
- (A) wanted to improve her writing skills
  - (B) realized that her letters needed an appropriate closing
  - (C) was impatient with what seemed to be interference from her granddaughter
  - (D) felt that it was important to contribute more directly to the letters
  - (E) began to feel closer to her sister as her letters became more personal
19. The passage is best interpreted as an account of
- (A) the formative stage of a writer's development
  - (B) a long-standing rivalry between two sisters
  - (C) a common experience of immigrants in the United States
  - (D) a basic misunderstanding about the purpose of writing letters
  - (E) a grandmother's aspirations for her granddaughter

感谢CUUS、感谢满分网、感谢寄托、感谢猴哥SAT填空2300，我这次的填空只错了1个，感谢猴哥8000词频，感谢CUUS藏经阁的经验，感谢寄托的入门必读，感谢猴哥的《SAT词汇蓝宝书》以及EXCEL背诵法让我很快过了单词这一关，这次考了2200，不用再考了，为自己积攒点人品，发布这次的真题，希望和自己同样奋战在SAT考线上的亲们顺利通过考试。

**STOP**

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



## SECTION 10

Time — 10 minutes

14 Questions

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

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

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

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

## EXAMPLE:

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

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

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

1. When I asked which of the children was his daughter, he pointed to a little girl feeding a duck in a blue dress.
  - (A) feeding a duck in a blue dress
  - (B) feeding a duck and was in a blue dress
  - (C) feeding a duck, she was in a blue dress
  - (D) in a blue dress who was feeding a duck
  - (E) in a blue dress, she was feeding a duck
2. Tomorrow we will go to the wildlife park, and then lunch will be eaten at our favorite spot by the river.
  - (A) park, and then lunch will be eaten at our favorite spot
  - (B) park, but then lunch will be eaten at our favorite spot
  - (C) park, but then, at our favorite spot, lunch will be eaten
  - (D) park and then eat lunch at our favorite spot
  - (E) park and then are eating lunch at our favorite spot
3. Knowing that the new movie would draw big crowds, our tickets were bought ahead of time so that we could avoid the long lines.
  - (A) our tickets were bought ahead of time so that we could avoid the long lines
  - (B) our tickets were bought ahead of time, allowing us to avoid the long lines
  - (C) by buying the tickets ahead of time allowed us to avoid the long lines
  - (D) we bought our tickets ahead of time so that we could avoid the long lines
  - (E) to avoid the long lines, our tickets were bought ahead of time
4. No one knows why the carved stone head in a column in Istanbul's Basilica Cistern is upside down, but they believe it that it was placed that way deliberately.
  - (A) they believe it that it was placed that way deliberately
  - (B) they are believed to be deliberately placed that way
  - (C) it is believed to have been placed that way deliberately
  - (D) placing it that way is believed to be deliberately done
  - (E) the belief is that they placed it that way deliberately



5. After considering the evidence presented by the prosecutor, there no longer remained doubt among the jurors about the defendant's guilt.
- (A) there no longer remained doubt among the jurors  
 (B) there no longer remained jurors doubting  
 (C) doubt no longer remained among the jurors  
 (D) the jurors no longer had any doubt  
 (E) the jurors no longer doubting
6. Tomato soup appeals to all age groups and can be made particularly delicious if adding sweet red peppers.
- (A) delicious if adding  
 (B) delicious by the addition of  
 (C) delicious, adding in  
 (D) delicious, add  
 (E) deliciously, by the addition of
7. If properly maintained, a bicycle can last for decades, providing recreation, transportation, and exercise opportunities for its owner.
- (A) If properly maintained, a bicycle can last for decades, providing  
 (B) Properly maintained, a bicycle that lasts for decades, providing  
 (C) If a bicycle is properly maintained, then it can last for decades and providing  
 (D) When a bicycle is maintained properly, it can last for decades, it can provide  
 (E) When you maintain your bicycle properly, it can last for decades and provide one with
8. People who are primarily familiar with the paper-folding art called origami, that it is a craft that is taught to children, they might be surprised by the highly sophisticated work of adult origami artists.
- (A) origami, that it is a craft that is taught to children, they  
 (B) origami, that it is a craft to be teaching to children  
 (C) origami, it is a craft that is taught to children  
 (D) origami as a craft to be teaching to children, they  
 (E) origami as a craft that is taught to children
9. The Medieval Warm Period was a time of unusually mild temperatures in the North Atlantic region, it lasted from approximately 800 to 1300 C.E.
- (A) Period was a time of unusually mild temperatures in the North Atlantic region, it lasted  
 (B) Period had been a time of unusually mild temperatures in the North Atlantic region, it lasted  
 (C) Period, a time of unusually mild temperatures in the North Atlantic region, lasted  
 (D) Period, a time of unusually mild temperatures in the North Atlantic region and lasting  
 (E) Period, a time of unusually mild temperatures in the North Atlantic region, it lasted
10. When in 1833 a London carpenter designed the first prefabricated house, making certain that a single person can carry any of the pre-cut panels from which it was assembled.
- (A) making certain that a single person can  
 (B) making certain that a single person could  
 (C) he makes certain that a single person can  
 (D) he made certain that a single person could  
 (E) he has made certain that a single person could



11. The ninth-century philosopher al-Kindi, in addition to overseeing the translation of Greek scientific texts into Arabic, treatises were written by him about the relationship between mathematics and music.
- (A) treatises were written by him  
(B) the treatises he wrote were  
(C) he wrote treatises  
(D) writing treatises  
(E) wrote treatises
12. Because the number of Hawaiian monk seals in the wild have decreased dramatically since 1989, conservationists fear that these endangered animals may soon become extinct.
- (A) have decreased  
(B) have been decreasing  
(C) has decreased  
(D) was decreasing  
(E) decreased
13. Themes of family and history figure prominently in Martín Espada's poetry, one poem tells of the journey of a father and son and their going to Puerto Rico to search for their ancestor's grave.
- (A) poetry, one poem tells of the journey of a father and son and their going  
(B) poetry; one poem tells of the journey of a father and son  
(C) poetry, one of which tell of a father and son's journey  
(D) poetry, and one poem had told of the journey taken by a father and son who goes  
(E) poetry; one poem telling of a father and son's journeying
14. A good online course at the high school level provides resources that are comparable to courses in which teachers and students are in the same room.
- (A) courses  
(B) providing courses  
(C) that of courses  
(D) ones provided by them  
(E) those provided by courses

## STOP

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

感谢CUUS、感谢满分网、感谢寄托、感谢猴哥SAT填空2300，我这次的填空只错了1个，感谢猴哥8000词频，感谢CUUS藏经阁的经验，感谢寄托的入门必读，感谢猴哥的《SAT词汇蓝宝书》以及EXCEL背诵法让我很快过了单词这一关，这次考了2200，不用再考了，为自己积攒点人品，发布这次的真题，希望和自己同样奋战在SAT考线上的亲们顺利通过考试。

## Correct Answers and Difficulty Levels Form Codes AEHA, BWHA

### Critical Reading

#### Section 3

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

Number correct

Number incorrect

#### Section 4

COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.
1. D 1	14. D 4
2. C 1	15. A 5
3. A 3	16. B 2
4. E 3	17. B 3
5. B 5	18. E 5
6. B 1	19. C 3
7. E 3	20. E 5
8. B 3	21. D 3
9. B 5	22. B 3
10. A 3	23. A 5
11. E 3	24. C 3
12. B 1	25. C 4
13. D 3	

Number correct

Number incorrect

#### Section 9

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

Number correct

Number incorrect

### Mathematics

#### Section 2

Multiple-Choice Questions		Student-Produced Response Questions		DIFF. LEV.
COR. DIFF. ANS. LEV.	COR. ANS.	COR. ANS.		
1. C 1	9. .125, 1/8			2
2. C 1	10. 1,36,81,256			2
3. E 2	11. 20			2
4. E 2	12. 16			3
5. C 3	13. 4			3
6. B 4	14. 420			3
7. D 3	15. 4			3
8. A 4	16. 1080			4
	17. 1/3, .333			4
	18. 61			4

Number correct

Number incorrect

Number correct  
(9-18)

#### Section 5

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

Number correct

Number incorrect

#### Section 8

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

Number correct

Number incorrect

### Writing Multiple-Choice

#### Section 7

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

Number correct

Number incorrect

#### Section 10

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

Number correct

Number incorrect

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

## The Scoring Process

1. **Scanning.** Your answer sheet is scanned electronically, and the circle you filled in for each question is recorded in a computer file.
2. **Scoring.** The computer compares the circle filled in for each question with the correct response.
  - Each correct answer receives one point.
  - Omitted questions do not count toward your score.
  - One-fourth of a point is subtracted for each wrong answer to multiple-choice questions. No points are subtracted for wrong answers to the student-produced response mathematics questions.

### Example:

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

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

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

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

## Get Your Critical Reading Score

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

Section 3: Questions 1-23 \_\_\_\_\_  
Section 4: Questions 1-25 + \_\_\_\_\_  
Section 9: Questions 1-19 + \_\_\_\_\_  
Total = \_\_\_\_\_ (A)

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

Section 3: Questions 1-23 \_\_\_\_\_  
Section 4: Questions 1-25 + \_\_\_\_\_  
Section 9: Questions 1-19 + \_\_\_\_\_  
Total = \_\_\_\_\_  
 $\times 0.25 =$  \_\_\_\_\_ (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 2: Questions 1-18 \_\_\_\_\_  
Section 5: Questions 1-20 + \_\_\_\_\_  
Section 8: Questions 1-16 + \_\_\_\_\_  
Total = \_\_\_\_\_ (A)

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

Section 2: Questions 1-8 \_\_\_\_\_  
Section 5: Questions 1-20 + \_\_\_\_\_  
Section 8: Questions 1-16 + \_\_\_\_\_  
Total = \_\_\_\_\_  
 $\times 0.25 =$  \_\_\_\_\_ (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 7: Questions 1-35 \_\_\_\_\_  
Section 10: Questions 1-14 + \_\_\_\_\_  
Total = \_\_\_\_\_ (A)

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

Section 7: Questions 1-35 \_\_\_\_\_  
Section 10: Questions 1-14 + \_\_\_\_\_  
Total = \_\_\_\_\_  
 $\times 0.25 =$  \_\_\_\_\_ (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 AEHA, BWHA

Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Multiple-Choice Scaled Score	Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Multiple-Choice Scaled Score
67	800			31	490	550	54
66	800			30	490	540	53
65	800			29	480	530	52
64	790			28	470	520	51
63	770			27	470	520	50
62	760			26	460	510	49
61	740			25	450	500	48
60	730			24	450	490	47
59	720			23	440	490	46
58	700			22	430	480	45
57	690			21	430	470	45
56	680			20	420	460	44
55	670			19	410	460	43
54	660	800		18	410	450	42
53	660	770		17	400	440	41
52	650	740		16	390	430	40
51	640	720		15	380	420	39
50	630	710		14	380	410	39
49	620	700	80	13	370	410	38
48	620	680	78	12	360	400	37
47	610	670	75	11	360	390	36
46	600	660	73	10	350	380	35
45	590	660	71	9	340	370	34
44	590	650	69	8	330	360	33
43	580	640	67	7	320	350	32
42	570	630	66	6	310	340	31
41	560	620	64	5	300	320	30
40	560	610	63	4	290	310	29
39	550	610	62	3	280	300	27
38	540	600	61	2	260	280	26
37	540	590	60	1	250	270	24
36	530	580	59	0	230	250	22
35	520	580	58	-1	210	230	20
34	510	570	57	-2	200	210	20
33	510	560	56	-3	200	200	20
32	500	550	55	and below			

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

## SAT Writing Composite Score Conversion Table

### Form Code AEHA

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

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



**Practice Sheet for Essay**

A large rectangular area containing 25 horizontal lines for writing an essay.

# Practice Sheet for Essay

A large rectangular box with a thin black border, containing 25 horizontal lines for writing. The lines are evenly spaced and extend across most of the width of the box, leaving a small margin on the left and right sides.

# Practice Sheet for Essay

A large rectangular box containing 25 horizontal lines for writing an essay.





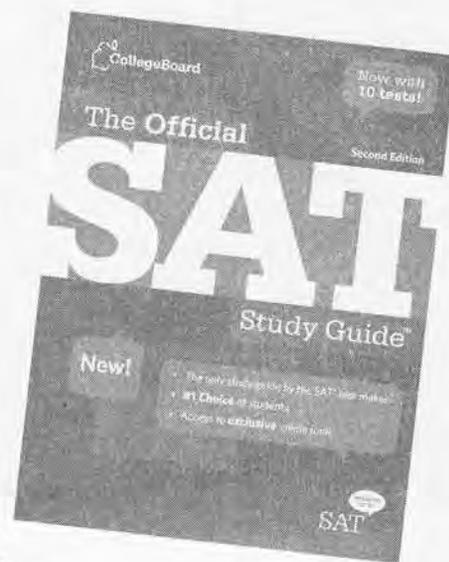
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