

Form Codes AEIC, BWIC



The SAT[®]

Question-and-Answer Service

May 2012 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

NOT FOR REPRODUCTION AND RESALE.

© 2012 The College Board. College Board, achieve more, SAT and the acorn logo are registered trademarks of the College Board. SAT Skills Insight, The Official SAT Online Course, The Official SAT Question of the Day and The Official SAT Study Guide are trademarks owned by the College Board.

achieve
more

SAT[®]

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.

People talk too much about their feelings. They share their deepest secrets and innermost thoughts on television talk shows. They write revealing autobiographies. They buy books that advise them to tell others about their feelings. We would be far better off if we followed the advice of Florence Nightingale, a pioneer in the field of nursing, who thought that people too often waste their feelings by talking about them and should instead turn their feelings into actions that bring results.

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

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

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



ESSAY

Time — 25 minutes

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

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.

As people become more knowledgeable and experienced, they eventually realize that complete equity and justice—whether in politics, in education, or in day-to-day events—will never really be achieved. Even so, they are encouraged to continue to hope for and fight for fairness. But shouldn't people put their energies to better use? There will always be unfairness in life, and becoming an adult means finding ways to make the best of this fact.

Assignment: Should people accept unfairness and find ways to make the best of it? Plan and write an essay in which you develop your point of view on this issue. Support your position with reasoning and examples taken from your reading, studies, experience, or observations.

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

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

ESSAY**Time — 25 minutes**

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

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.

No amount of wealth can help humanity move forward and make progress, even under the management of the most dedicated and socially conscious workers. Money only leads to selfishness and becomes an irresistible temptation to its owners to abuse it. The only thing that can lead people to praiseworthy ideas and noble deeds is to follow the example of great individuals who put other factors before money.

Adapted from Albert Einstein in Alice Calaprice, *The New Quotable Einstein*

Assignment: Does money lead to selfishness? Plan and write an essay in which you develop your point of view on this issue. Support your position with reasoning and examples taken from your reading, studies, experience, or observations.

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

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



ESSAY

Time — 25 minutes

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

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.

Advertisements provide information about available products and services. Many people argue, however, that something else is going on: advertisements try to convince people that when they buy things, they are also buying satisfaction and happiness. Advertisements merely fool people into believing that the next “new and improved” product will make their lives better, and the result is that people are even more unhappy and dissatisfied than they would have been without the advertisements.

Assignment: Do advertisements contribute to unhappiness and dissatisfaction? 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

23 Questions

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

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

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

Example:

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

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

(A) (B) (C) (D) ●

- Dave Anderson, founder of a national restaurant chain, promotes -----, encouraging others to start their own businesses.
(A) marketability (B) philanthropy
(C) appropriation (D) entrepreneurship
(E) connoisseurship
- The English monarch Elizabeth I may have wanted the miniature portraits of herself and her disgraced mother kept secret, since they were ----- her ring.
(A) concealed within (B) carved upon
(C) displayed beside (D) sheltered from
(E) different from
- Aware that his party's ----- image was a direct result of its distasteful policies, the candidate espoused a kinder, more -----, political platform.
(A) affable . . malicious
(B) miserly . . acrimonious
(C) harsh . . benevolent
(D) amiable . . pragmatic
(E) altruistic . . humane
- Edgar's ----- at having bungled the simple assignment was clear from his trembling lips and averted eyes.
(A) smugness (B) cunning (C) satisfaction
(D) chagrin (E) stealth
- While many educators have hailed the new documentary about climate change as a ----- for teachers interested in engaging their students on the issue, such enthusiasm is far from -----.
(A) windfall . . unclear
(B) hindrance . . unanimous
(C) harbinger . . uninformed
(D) boon . . universal
(E) prerequisite . . unsubstantiated
- Fermat's last theorem has been called the most ----- problem in all mathematics: for over 350 years, the conjecture ----- mathematicians, until it was finally proven in 1995.
(A) intricate . . marginalized
(B) arduous . . assuaged
(C) facile . . beleaguered
(D) banal . . beguiled
(E) vexing . . stymied
- The lifestyle of modern-dance pioneer Isadora Duncan was considered -----, since it was marked by unconventional behavior and attitudes.
(A) equestrian (B) abstemious (C) innocuous
(D) perfunctory (E) bohemian
- The normally ----- Mr. Bell was uncharacteristically ----- in discussing the film in an interview last week.
(A) buoyant . . upbeat
(B) voluble . . cryptic
(C) ebullient . . effusive
(D) inscrutable . . guarded
(E) loquacious . . garrulous

GO ON TO THE NEXT PAGE



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

Questions 9-10 are based on the following passage.

After Ruma's father retired, he began to travel, sending Ruma succinct, impersonal postcard accounts of the things he had seen and done: "Yesterday the Uffizi Gallery. Today a walk to the other side of Arno." Occasionally there was a sentence about the weather. But there was never a sense of her father's presence in those places. It was a one-sided correspondence; his trips were brief enough so that there was no time for Ruma to write back. It was only in his closing that he acknowledged any personal connection between them. "Be happy, love Baba," he signed them, as if the attainment of happiness were as simple as that.

9. The primary function of the passage is to
- (A) describe a pattern of behavior
 - (B) identify a growing conflict
 - (C) portray an uncommon event
 - (D) condone an instance of neglect
 - (E) analyze a fundamental motivation
10. Lines 10-12 ("Be . . . that") would best be characterized as a
- (A) harsh judgment of a blunt command
 - (B) total mockery of a nostalgic sentiment
 - (C) straightforward reading of an ironic comment
 - (D) wistful recollection of an old-fashioned attitude
 - (E) mild criticism of a commonplace expression

Questions 11-12 are based on the following passage.

During the early development of a new idea, scientists behave rather like artists, driven by temperament. We start off with a hunch, a feeling, even a desire that the world be one way, and then we proceed from that presentiment, often sticking with it long after the data suggest we may be leading ourselves and others down a blind alley. What saves us is that experiment acts as the ultimate referee, settling all disputes. No matter how strong our hunch is, at some point we will have to prove it with facts. Otherwise our hunch, no matter how strongly held, will remain just that.

11. In the first two sentences (lines 1-6), scientists are presented as all of the following EXCEPT
- (A) predisposed
 - (B) determined
 - (C) inherently logical
 - (D) somewhat idiosyncratic
 - (E) overly zealous
12. In context, the reference to "the ultimate referee" (lines 7-8) serves to emphasize the need for
- (A) agility
 - (B) objectivity
 - (C) commitment
 - (D) artistry
 - (E) conflict

**Questions 13-23 are based on the following passage.**

In this passage, a Hispanic American writer reflects on three gifts she received one day as a child.

When I was seven, my parents gave me a doll, a doll's house, and a book, *The Arabian Nights*, which came wrapped in red tissue paper which I used as a book cover.

1 ine I was just getting ready to read when my mother walked
5 into my room.

"Isn't your doll just beautiful?" my mother asked. I looked at the doll—I'll have to call her "She" because I never gave her a name. *She* was a fair celluloid creature with blue eyes that matched her ruffled dress. I puckered
10 my lips and raised my eyebrows, not really knowing how to let my mother down easily.

"This doll is different," my mother explained, trying to talk me into playing with it. "She says 'Mommy.'"

15 The noises *She* made sounded more like a cat's cries than a baby's babbles. Thinking that the doll needed love, I hugged her tightly for a long time. Useless, I said to myself finally. I decided to play with the doll's house. But since rearranging the tiny furniture seemed to be the only activity possible, I lost interest. I caught sight again of the third of
20 my gifts, *The Arabian Nights*, and I began to read it. From that moment, the book was my constant companion.

Every day, after doing my homework, I climbed our guava tree. Nestled among its branches, I read and reread the stories in *The Arabian Nights* to my heart's content.
25 My mother became concerned as she noticed that I wasn't playing with either the doll or the little house. She wouldn't have dreamed of asking me to give up my reading session, but she began to insist that I take the doll up the tree with me.

30 Trying to read on a branch fifteen feet off the ground while holding on to the silly doll was not easy. After nearly falling off twice, I devised a way to please my mother and keep my neck intact. I tied one end of a long vine around the doll's neck and the opposite one around the branch. This way I could let the doll hang in midair while I read.
35 I always looked out for my mother, though. I sensed that my playing with the doll was of great importance to her. So every time I heard her coming, I lifted the doll up and hugged her. The smile in my mother's eyes told me my plan worked.

40 The inevitable happened one afternoon. Totally absorbed in the reading, I did not hear my mother calling me. When I looked down, I saw my mother staring at the dangling doll. Fearing the worst of scoldings, I climbed down in a flash, reaching the ground just as my mother was untying the doll.
45 To my surprise, she did not scold. She kept on staring at the doll, then she glanced at me.

50 The next day, my father came home early and suggested that he and I play with the doll's house. Soon I was bored, but my father seemed to be having so much fun I didn't have the heart to tell him. Quietly I slipped out, picking up my

book on my way to the yard. Absorbed as he was in arranging and rearranging the tiny furniture, he didn't notice my quick exit.

55 Almost 20 years passed before I found out why the hanging-doll episode had been so significant for my parents. By then I was a parent myself. After recounting the episode amid my father's and my laughter, my mother confessed that all those years she had been afraid I would turn out to be an unnatural mother. She was delighted that I had turned out to be a most loving and understanding mother to my son.

60 My mother often recalls the incident of the hanging doll and thanks God aloud for making me a good parent. Then she sighs as she inventories my vicissitudes in life, pointing out that with my education I might have been a rich dentist instead of a poor poet. I look back at that same childhood
65 incident, recall my third gift, the book in red tissue paper, and I, too, take inventory of the experiences that have made me who and what I am. I pause to marvel at life's wondrous ironies.

13. The mother's question in line 6 is best described as

- (A) an attempt to shape her daughter's reaction
- (B) an expression of her daughter's appreciation
- (C) a justification of her daughter's tastes
- (D) a recognition of her daughter's anxieties
- (E) a desire to share her daughter's wonder

14. The word "*She*" in line 8 conveys the idea that the

- (A) girl and the doll had something in common
- (B) girl's parents believed that girls should play with dolls
- (C) mother's gift was immediately appreciated
- (D) girl did not care much for the doll
- (E) mother had chosen a name for the doll

15. In lines 15-16, the statement "Thinking . . . time" adds to the characterization of the girl primarily by

- (A) underscoring her anger at her mother
- (B) focusing on her rebellious attitude
- (C) demonstrating her sympathetic nature
- (D) revealing her secret plans for the doll
- (E) exposing her deception



16. The most direct result of the condition imposed by the mother in line 28 (“but she . . . with me”) is that the
- (A) doll brings the mother and daughter closer together
 - (B) doll becomes a nuisance to the girl
 - (C) girl fears that her friends will ridicule her
 - (D) girl begins to feel like a hypocrite
 - (E) girl damages a new possession
17. The intended result of the plan referred to in lines 32-34 (“I tied . . . I read”) was that the
- (A) girl would play with the doll
 - (B) girl would risk hurting herself
 - (C) girl would please her mother
 - (D) girl would demonstrate her independence publicly
 - (E) mother would be distracted
18. Which of the following strategies do the parents use to influence the girl?
- (A) Cajolery and play
 - (B) Lectures and stories
 - (C) Manipulation and discipline
 - (D) Deception and argument
 - (E) Affection and bribery
19. Ultimately, the family looks back on the doll incident as
- (A) humorous
 - (B) educational
 - (C) senseless
 - (D) traumatic
 - (E) embarrassing
20. In the last paragraph, the mother and the daughter assess the daughter’s life in which of the following ways?
- (A) The mother is satisfied now that the daughter has a career, while the daughter is pleased to have made her mother happy at last.
 - (B) Both mother and daughter agree that the daughter’s achievements are unsatisfactory.
 - (C) The mother wishes that the daughter were rich, while the daughter wishes that she had been allowed more freedom as a child.
 - (D) The mother frets about her daughter’s choices in life, while the daughter values their consequences.
 - (E) The mother rejects her daughter’s lifestyle, while the daughter longs to be accepted by her mother.
21. The final paragraph makes which point about the “third gift” referred to in line 66?
- (A) Gifts can be given over and over.
 - (B) Gifts can have unexpected consequences.
 - (C) Gifts are commemorations of special events.
 - (D) Gifts can compensate for earlier disappointments.
 - (E) Gifts are a means of expressing complex feelings.



22. Which aspect of the passage best illustrates the “ironies” referred to in line 69 ?
- (A) That the author has herself now become a mother
 - (B) That the author’s father was as concerned by the incident as was her mother
 - (C) That the father was comfortable playing with toys traditionally meant for girls
 - (D) That the author was influenced most by the gift least valued by her mother
 - (E) That the author became a poet instead of a dentist

23. The author’s account of a childhood episode reveals that, as a young girl, she viewed her parents as people who
- (A) were easily discouraged by obstacles
 - (B) might withdraw their love at any moment
 - (C) were unconcerned by contradictions in their behavior
 - (D) required constant reassurance of their superiority
 - (E) had emotional needs that must be protected

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

18 Questions

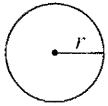
Turn to Section 4 (page 5) of your answer sheet to answer the questions in this section.

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

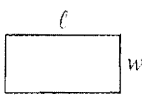
- The use of a calculator is permitted.
- All numbers used are real numbers.
- Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is not 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

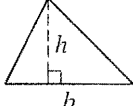


$$A = \pi r^2$$

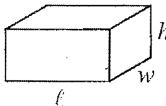
$$C = 2\pi r$$



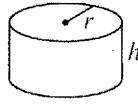
$$A = \ell w$$



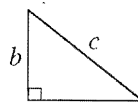
$$A = \frac{1}{2}bh$$



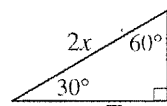
$$V = \ell wh$$



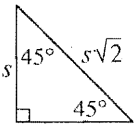
$$V = \pi r^2 h$$



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



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.

- Eric planted a tree that was 30 inches tall, and it grew at a constant rate of 20 inches per year for the next 10 years. Which of the following represents the height, in inches, of the tree t years after it was planted, for all values of t between 0 and 10?
 - $30 + 20t$
 - $50 + t$
 - $50 + 10t$
 - $600 + t$
 - $600t$
- If $p - 3$ is an even integer, then p could be which of the following?
 - 2
 - 0
 - 1
 - 2
 - 4

GO ON TO THE NEXT PAGE



JANE'S TELEVISION VIEWING PER DAY

Monday	  
Tuesday	 
Wednesday	  
Thursday	
Friday	   
Saturday	?
Sunday	?



= 1 hour

3. The pictogram above shows the number of hours Jane watched television each day over the first 5 days in a week. The average (arithmetic mean) number of hours of television that Jane watched per day for the 7 days is 3. Which of the following are possible numbers of hours of television that Jane watched on Saturday and Sunday, respectively?
- (A) 2 hours and 4 hours
 (B) 3 hours and 2 hours
 (C) 3 hours and 4 hours
 (D) 3 hours and 5 hours
 (E) 6 hours and 3 hours

4. In the xy -plane, the point $(3, 0)$ is the center of a circle that has a radius of 3. Which of the following is NOT a point on the circle?
- (A) $(6, 0)$
 (B) $(6, -3)$
 (C) $(3, 3)$
 (D) $(3, -3)$
 (E) $(0, 0)$

$$f(x) = 2x - 6$$

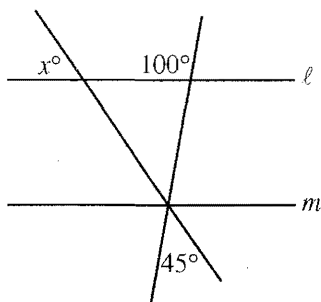
$$g(x) = x^2 - 3x - 4$$

5. The functions f and g are defined above. What is the value of $f(7) - g(3)$?
- (A) 0
 (B) 2
 (C) 4
 (D) 10
 (E) 12

GO ON TO THE NEXT PAGE 



6. The first term of a certain sequence is -2 and the second term is -4 . Every term after the second term is obtained by dividing the sum of the previous two terms by 2. For example, the third term of the sequence is $\frac{(-4) + (-2)}{2} = -3$. What is the sixth term of this sequence?
- (A) -3
- (B) $-\frac{27}{8}$
- (C) $-\frac{21}{8}$
- (D) $-\frac{7}{4}$
- (E) $-\frac{1}{8}$



7. In the figure above, $l \parallel m$. What is the value of x ?
- (A) 40
- (B) 45
- (C) 50
- (D) 55
- (E) 60

8. If $\frac{x}{y} = k$ and $k > 0$, what is $\frac{x+y}{x}$ in terms of k ?
- (A) $\frac{k-1}{k}$
- (B) $\frac{k+1}{k}$
- (C) $\frac{1}{k}$
- (D) $\frac{k}{k-1}$
- (E) $\frac{k}{k+1}$



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.

Write answer in boxes.

Grid in result.

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

7	/	1	2
○	○	○	○
○	●	○	○
1	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

Fraction line

Answer: 2.5

2	.	5	
○	○	○	○
○	○	●	○
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

Decimal point

Answer: 201

Either position is correct.

2	0	1	
○	○	○	○
○	○	○	○
1	1	1	1
2	●	2	2
3	3	3	3
4	4	4	4

2	0	1	
○	○	○	○
○	○	○	○
1	1	●	1
2	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 $\begin{array}{|c|c|c|c|} \hline 3 & 1 & / & 2 \\ \hline \circ & \circ & \circ & \circ \\ \hline \end{array}$ 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	
○	○	○	○
○	○	○	○
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6

.	6	6	6
○	○	○	○
○	○	○	○
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	●	●	●

.	6	6	7
○	○	○	○
○	○	○	○
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	●	●	●

9. By Saturday afternoon, 375 tickets had been sold for a Saturday evening performance at a theater with a capacity of 500 seats. After those 375 tickets were sold, half the members of a group of 210 people each purchased a ticket. If no other tickets were sold prior to the performance, how many tickets remained unsold at the time of the performance?

10. The sum of five adjacent nonoverlapping angles is 180° . Four of the angles each have a measure of x° , and the remaining angle measures 128° . What is the value of x ?

GO ON TO THE NEXT PAGE



11. For three positive prime numbers a , b , and c ,
 $ab = 33$ and $bc = 21$. What is the value of abc ?


13. The product of 3, 5, and 7 is equal to one-half the sum
of 20 and x . What is the value of x ?

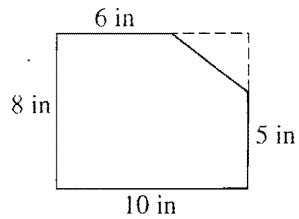
14. On the number line, what is one possible number that
is less than 5 units from both 1 and 10?

NUMBER OF CARS SOLD

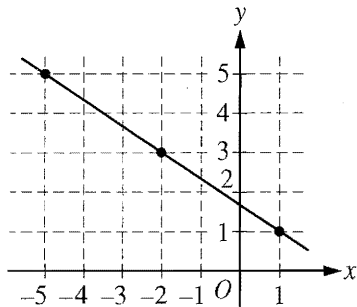
Color of Car	Salesperson				Total
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	
Blue		9	8		23
Red	8		10	8	
Black	1	8		6	
Total	10		21		70

12. On the basis of the information in the incomplete table
above, how many red cars did Salesperson B sell?

GO ON TO THE NEXT PAGE 

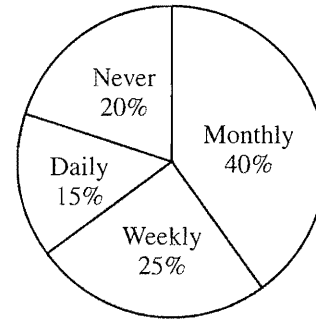


15. A triangular region was cut from a rectangular piece of paper as shown above. What is the perimeter, in inches, of the resulting pentagon?



16. The line in the xy -plane above has equation $y = mx + b$, where m and b are constants. What is the value of b ?

INTERNET SURVEY



17. The circle graph above shows the distribution of responses to a survey in which a group of people were asked how often they visit a certain weather Internet site. What fraction of those surveyed reported that they visit the site at least monthly?

$$x^y = 4096$$

18. In the equation above, x and y are positive integers. What is the greatest possible value of $x - y$?

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

25 Questions

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

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

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

Example:

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

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

(A) (B) (C) (D) ●

1. Dana's colleagues complained that she was both ----- and -----: she spoke condescendingly and talked about herself too much.
- (A) sympathetic . . disagreeable
(B) proud . . attentive
(C) timid . . dejected
(D) patronizing . . boastful
(E) enthusiastic . . overbearing
2. The ----- of new orders meant that enough work had arrived to keep everyone at the plant working overtime.
- (A) influx (B) instigation (C) abeyance
(D) diminution (E) dearth
3. Many important inventions are the result of -----; for example, Chinese alchemists accidentally discovered gunpowder while trying to create ----- that would make their emperor immortal.
- (A) perseverance . . a balm
(B) serendipity . . an elixir
(C) expedience . . a toxin
(D) happenstance . . a bane
(E) fortitude . . a potion
4. A notorious -----, the critic struck readers as being more concerned with the ----- of his own literary performance than with the book being reviewed.
- (A) narcissist . . success
(B) pragmatist . . scope
(C) egoist . . condemnation
(D) misanthrope . . inadequacy
(E) adversary . . consistency
5. That bison congregate in large herds suggests that they are ----- animals, yet individually they appear -----, seemingly indifferent to their circumstances.
- (A) fastidious . . tractable
(B) taciturn . . impassive
(C) ubiquitous . . finicky
(D) gregarious . . stolid
(E) companionable . . skittish



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

Questions 6-9 are based on the following passages.

Passage 1

The world has always been a large place, but in some senses it has become much smaller than it was. As recently as the late nineteenth century, the great science fiction
 Line writer Jules Verne wrote the then-unbelievable novel
 5 *Around the World in Eighty Days*. Today we can physically circumnavigate the world in one day and electronically orbit the planet in just eight seconds. A truly global outlook is feasible now because of recent developments in transportation and communications. People all over the
 10 world have enthusiastically adopted these innovations to reach out and touch others, both physically and electronically, around the globe.

Passage 2

Our world, seemingly global, is in reality a planet of thousands of the most varied and never intersecting
 15 provinces. A trip around the world is a journey from backwater to backwater, each of which considers itself, in its isolation, a shining star. For most people, the real world ends on the threshold of their house, at the edge of their village, or, at the very most, on the border of their valley.
 20 That which is beyond is unreal, unimportant, and even useless, whereas that which we have at our fingertips, in our field of vision, expands until it seems an entire universe, overshadowing all else.

6. The author of Passage 2 would most likely argue that the “outlook” mentioned in line 8, Passage 1, is
- (A) rare except among avid readers
 - (B) common among residents of small towns
 - (C) insincere in its apparent optimism
 - (D) self-deluding and dangerous
 - (E) shared by relatively few people
7. The author of Passage 1 would most likely regard the attitude characterized in lines 17-23, Passage 2 (“For . . . else”), as
- (A) parochial
 - (B) comforting
 - (C) inspiring
 - (D) auspicious
 - (E) reckless
8. The last sentence of each passage makes use of
- (A) a reference to communication
 - (B) an image of fellowship
 - (C) an example of innovation
 - (D) a metaphor for proximity
 - (E) an allusion to history
9. Which of the following best describes the relationship between the two passages?
- (A) They criticize similar developments.
 - (B) They illustrate antithetical attitudes.
 - (C) They have compatible agendas.
 - (D) They draw the same conclusion using different research methods.
 - (E) They both examine changes in the perception of an issue over time.

**Questions 10-15 are based on the following passage.**

The following passage is adapted from a 1987 book on astronomers at an observatory in California. The author recounts a conversation with the late astronomer and geologist Eugene Shoemaker.

Gene said, “We are going to go after something new this month—Trojan asteroids.” He picked up a sheet of computer paper and unfolded it. It was titled “Known Trojans,” and it contained a list of heroes from the Trojan War—Achilles, Patroclus, Hector, Nestor, Priam. Each name was that of a minor planet in orbit around the Sun. A minor planet is the same thing as an asteroid.

There were two clouds of Trojans: one on either side of Jupiter and sharing Jupiter’s orbit. Trojans were faint, slow-moving asteroids and darker than anthracite coal, which is the reason only 40 Trojan planets had been found. In the solar system’s main asteroid belt, thousands of other minor planets had been found. The Trojan clouds had never been completely explored. Scattered pinpoints of light, barely resolvable on the photographic emulsion of a small telescope, Trojan planets were almost impossible to find. They fanned out for half a billion miles on either side of Jupiter. Nobody knew for sure how they had gotten there. Nobody knew for sure what they were made of—except that it was some dark substance.

Many astronomers, weaned on powerful telescopes, are quintessentially what are known as extragalactic types. To many of them the solar system offers little scientific challenge—nine balls of nonluminous matter whirling around a (pathetically) normal star, in addition to some gritty stuff, such as asteroids, moons, and comets. Such astronomers view planets as the scrap heaps of the universe and claim that the only thing the Earth is good for is to serve as a platform for a telescope.

Gene Shoemaker offered an oblique reply to defamation of planets. “The solar system is an insignificant bunch of dust,” he admitted. “It also happens to be where we live.” Somewhere in his mind’s eye, or maybe in his heart, Gene carried a peculiar vision of the solar system. It was not any solar system that I had ever heard of before. In schoolbooks the solar system is pictured as a series of flat, concentric circles centered on the Sun, each circle representing the orbit of a planet. In Gene’s mind the solar system was a spheroid. In Gene’s mind the solar system was not at all the eternal, unvarying mechanism envisioned by seventeenth-century scientists like Isaac Newton, but a carnival—a dynamic, evolving cloud of debris, filigreed with bands and shells of shrapnel, full of bits and pieces of material liable to be pumped into ellipses and loops and long, chaotic wobbling orbits which carried drifting projectiles all over the place—minor planets that every once in a while would take a hook into a major planet, causing a major explosion.

He said, “There’s just a zoo of beasts out there, roaming the solar system. While it’s tremendous fun discovering these little planets, the real fun is trying to find out what they are and how they fit into the origin of the solar system.”

10. The second paragraph (lines 8-20) serves primarily to
- (A) provide information about objects referred to in the first paragraph
 - (B) draw conclusions based on claims made in the first paragraph
 - (C) introduce an argument developed in the rest of the passage
 - (D) present the terms of an ongoing debate
 - (E) define key words in a discipline
11. The “astronomers” mentioned in line 27 hold the view that the solar system
- (A) appears to lack order
 - (B) is made up of uninteresting objects
 - (C) merits additional human exploration
 - (D) is older than originally thought
 - (E) used to include more planets like Earth
12. Shoemaker’s comment “It also happens to be where we live” (line 32) implies that
- (A) the solar system is of interest for reasons other than its astrophysical characteristics
 - (B) scientists who dismiss the solar system should not be taken seriously
 - (C) humans one day may live on planets outside the solar system
 - (D) astronomers should focus on galaxies beyond the solar system
 - (E) the place where humans live is ultimately not important
13. In lines 34-35 (“It . . . before”), the author offers a personal comment in order to
- (A) add a conversational tone to an otherwise dry summary
 - (B) convey his dismay at the strangeness of Shoemaker’s theory
 - (C) disparage his own previous ignorance of extragalactic astronomy
 - (D) emphasize the distinctiveness of Shoemaker’s view of the solar system
 - (E) reveal his frustration at having to juggle conflicting scientific explanations



14. In context, lines 39-41 (“In Gene’s . . . carnival”) emphasize which contrast?

- (A) Stability versus variety and change
- (B) Order versus rigidity
- (C) Beauty versus danger
- (D) Permanence versus decay and destruction
- (E) Harmony versus incessant conflict

15. Shoemaker’s phrase “zoo of beasts” (line 48) suggests that the solar system

- (A) needs constant attention
- (B) is safely contained
- (C) contains diverse entities
- (D) can be explored with ease
- (E) exists for our enjoyment



Questions 16-25 are based on the following passage.

This passage is adapted from the autobiography of an American performer and choreographer of modern dance. Here she discusses a period during the 1960s when she was attending college and majoring in art history.

Line 5 Although I was working very hard at dance, I had no idea if I was good enough to make it professionally. And even if I did, what was a dancer to this culture? What did saying you were going to be a dancer mean to the guy on the street, to the American middle class earning its living in the real world? How could I explain that there are things that are important in all our lives that can be expressed only in dance, that there are not only physical truths but behavioral values and emotional reservoirs that can be investigated and demonstrated only by bodies in motion? That there are times and situations where words cannot be trusted to do the job? That there is a genuine and specific need for dance, not just in me, but in us all? I could perhaps have used the word “artist,” said that was what I was going to be. People would have assumed I said that because I was studying painting. It too is a visual art, but unlike dancing, painting makes its truths into a product you can hold. And that can be sold. Painting has a solid market and therefore is respected in an entrepreneurial society. However, I never intended to be a painter, not seriously, and certainly had no intention of teaching or curating. Nonetheless, I had continued my art history major. But what, as a dancer, would I do with the history of art, other than get a sheepskin* to send home to Mother? At the time I could not see any use to the major, but in fact I had begun to use the discipline of art history to reinforce my own sense of what is classic in art. I was locating that strain that survives generation after generation—graphic, bold, fundamental, whether in the abstract geometric sculptures of Cycladic women from the Bronze Age or the simple functional designs of nineteenth-century Shaker furniture. I was getting my proportions right, finding the line which has on one side a refinement that bleeds life, and on its other a condition where things are so rough, expressionistic, or vague that all you can see is self-indulgence. As I came to believe in my own artistic cravings, I became ever more self-righteous, thinking I was coming to know the difference between good art and bad art, and I had even less patience for forms of experimentation that I saw as confusion. I liked work that looked as though the artist clearly knew what he was doing and believed in it.

Line 45 And that was another thing. Why was “he” to denote the artist, a pronoun I unconsciously use even now? Where were the women? Where in the history of art—music, architecture, painting, sculpture, most centuries of literature—were women seen as major contributors? Sometimes I stole time from memorizing the required art

50 history and looked through the meager dance collection in the public library, where I found my answer: images of Isadora Duncan, Mary Wigman, Doris Humphrey, Ruth St. Denis, and Martha Graham. These women were the pioneers of a new art form. In creating modern dance, they had struck out on their own, and running my fingers over their pictures, I literally tried to absorb their power and authority. In their art form, they were genuinely potent—
55 not relegated to being dilettantes, dabblers, Sunday painters. I was not interested in entering a profession where I was handicapped by second-class status. Now I knew what I was doing both in art history and in dance, and when graduation day came I skipped the ceremonies. Working toward becoming an artist in a way that I could understand, I chose to go to a rehearsal instead.

* a diploma

16. The passage is best described as a
- (A) confession of having made unwise choices
 - (B) narrative of academic accomplishment
 - (C) celebration of past achievements
 - (D) description of gaining new understanding
 - (E) commemoration of a life-changing event
17. In lines 2-13 (“And even . . . all”), the author shifts from
- (A) admitting that dance is not respected to explaining why that is so
 - (B) implying that dance is generally not valued to suggesting why it should be
 - (C) suggesting that dance is not difficult to understand to arguing that it should have more popular appeal
 - (D) suggesting that dance is misunderstood to mocking those who fail to appreciate it
 - (E) complaining that dance is considered irrelevant to sympathizing with that attitude
18. In line 18, “solid” most nearly means
- (A) substantial
 - (B) uninterrupted
 - (C) compact
 - (D) three-dimensional
 - (E) prudent



19. Which statement best summarizes the author's answer to the question in lines 22-24 ("But what . . . Mother") ?
- (A) Create dance interpretations of certain classic works of art
 (B) Learn fundamental standards of artistic excellence
 (C) Become familiar with ancient legends and myths
 (D) Collect historical information about famous dancers
 (E) Benefit from rigorous training in scholarly methodology
20. In line 25, "but" signals a contrast between
- (A) former illusion and present speculation
 (B) past perception and retrospective insight
 (C) youthful enthusiasm and mature reflection
 (D) impulsive conduct and circumspect behavior
 (E) initial intention and eventual disappointment
21. In line 26, "discipline" most nearly means
- (A) regimentation
 (B) conformity
 (C) punishment
 (D) custom
 (E) field
22. For the author, "classic" (line 27) means
- (A) strictly conventional
 (B) austere and unadorned
 (C) essential and enduring
 (D) prized by famous painters
 (E) created in ancient times
23. As a young woman, the author viewed the "forms of experimentation" referred to in line 39 with
- (A) disdain
 (B) suspicion
 (C) nonchalance
 (D) fascination
 (E) admiration
24. Which additional term would be most consistent with the list in lines 56-57 ?
- (A) Amateurs
 (B) Experimenters
 (C) Adventurers
 (D) Pioneers
 (E) Blunderers
25. The author uses questions to do all of the following EXCEPT
- (A) present personal insights
 (B) guide the course of an argument
 (C) illustrate her lifelong self-doubt
 (D) raise issues for consideration
 (E) convey her youthful confusion

STOP

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

**SECTION 6****Time — 25 minutes****35 Questions****Turn to Section 6 (page 6) of your answer sheet to answer the questions in this section.****Directions:** For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

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

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

EXAMPLE:

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

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

(A) ● (C) (D) (E)

1. Some researchers think that vertical farms—multistory greenhouses used for growing food—may benefit society by conserving land, recycling wastewater, and reduction in fossil-fuel emissions.
 - (A) reduction in
 - (B) they reduce
 - (C) to reduce
 - (D) reducing
 - (E) through reduction in
2. An entire ant colony working together can solve problems, such as when they find the shortest path to a food source, that are impossible for an individual ant to solve.
 - (A) such as when they find
 - (B) such as finding of
 - (C) such as finding
 - (D) like the finding of
 - (E) like their finding of
3. The brains of infants have many more neural connections than the brains of adults do, but they are much less efficient.
 - (A) but they are much less efficient
 - (B) but it is much less efficient
 - (C) but the efficiency being lower
 - (D) they are much less efficient
 - (E) their efficiency is much lower, though
4. Arctic sea ice first freezes and it forms layers of ice crystals and these are both flexible and almost transparent.
 - (A) Arctic sea ice first freezes and it forms layers of ice crystals and these
 - (B) Arctic sea ice first freezes, as it then formed layers of ice crystals that
 - (C) When arctic sea ice freezes first, it would form layers of ice crystals that
 - (D) When arctic sea ice first freezes, it forms layers of ice crystals that
 - (E) Layers of ice crystals occurring when arctic sea ice first freezes and



5. New research indicates that regular aerobic exercise can improve brain performance by its boosting of memory and cognitive processing speed.
- (A) performance by its boosting of
(B) performance by boosting of
(C) performance by boosting
(D) performance, its boost of
(E) performance, it boosts
6. Having already become famous for his Arctic expedition, polar explorer Fridtjof Nansen won the Nobel Peace Prize in 1922 for his humanitarian work.
- (A) Having already become
(B) His having already become
(C) He had already been
(D) He was already
(E) He, being already
7. Famous for their fantastic allegories, the works of Argentine author Jorge Luis Borges have been international acclaimed.
- (A) have been international acclaimed
(B) have been acclaimed internationally
(C) had their acclaim internationally
(D) was acclaimed international
(E) was acclaimed internationally
8. Some critics insist that Aleksandr Solzhenitsyn, although a great humanitarian, is only a mediocre writer.
- (A) although a great humanitarian, is only a mediocre writer
(B) despite great humanitarianism, is only mediocre when judged as to writing
(C) even when being judged a great humanitarian, is a mediocre writer only
(D) even when noted for his great humanitarianism, only a mediocre writer
(E) while being a great humanitarian, but only a mediocre writer
9. Defying expectations that she pursued a career in medicine, Amy Tan chose to become a writer.
- (A) pursued
(B) pursues
(C) will pursue
(D) would pursue
(E) had pursued
10. Women in developing countries who want to start small businesses often benefit economically from microcredit, a practice in which she is lent modest amounts of money.
- (A) in which she is lent
(B) when she is lent
(C) whereby they are lent
(D) they are lent
(E) lending her
11. In the review of her latest play, the playwright was praised as highly for her innovative plotlines and because of her remarkable perception of audience expectation.
- (A) and because of her remarkable perception of
(B) and because she was remarkably perceptive of
(C) and was remarkably perceptive with
(D) as for her remarkable perception of
(E) as well as being remarkably perceptive with



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

EXAMPLE:

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

(A) ● (C) (D) (E)

12. When we went on a camping trip last summer, my
A
cousin and me rowed across a lake that lies between
B C D
two mountain peaks. No error
E
13. After studying plants that thrive in warm climates
A B
and those that do not, scientists concluding that
C D
a plant's heat tolerance is determined by a particular
gene. No error
E
14. There is basic differences between computer memory
A
and human memory that make it unlikely that one
B C
can replace the other. No error
D E
15. Having been Leslie's teammate for three basketball
A B
seasons, Claire knew that Leslie had the experience
C
and temperament requiring of a good team captain.
D
No error
E
16. My uncle's house, like many others built during the
A B
1950s, were designed in the ranch style that is still
C D
popular today. No error
E
17. As the river current accelerated through the narrowing
A
canyon walls, the kayakers had to be particular careful
B
to avoid the rocks that would suddenly appear in
C D
front of them. No error
E



18. A leopard's spots serve as camouflage not because

they were shaped like leaves and branches but

A B

because they form a micropattern that enables the

animal to blend into its woodland background.

C D

No error

E

19. Located on the firefly's lower abdomen is a mass

A B

of luminescent cells in which oxygen combines with

C

a substance called luciferin to produce the insect's

D

distinctive glow. No error

E

20. In her fiction, Nella Larsen explored the minds of

A B

her characters in great detail and making them not

C

only believable but also fascinating to the reader.

D

No error

E

21. A human runner amazed the world in 2004

by winning the Man versus Horse Marathon, it has

A B

pitted hundreds of people against horses every

C

year since 1980. No error

D E

22. Evidence discovered in regions that were once part

A

of the Roman Empire suggest that the Romans used

B

a covering called a hipposandal to protect their

C D

horses' hooves. No error

E

23. If it had been up to my sisters and I, we

A B

would have spent every summer vacation at our

C

cousins' house, which was right on the lake. No error

D E

24. Greenland's vast glaciers contain so much frozen

A B

water that should they melt, sea levels would rise

C

worldwide, altering coastlines everywhere. No error

D E

25. The domed shell of a box turtle is hinged at the

A

bottom, allowing the animal to close their shell

B C

tightly to evade predators. No error

D E

26. The leopard frog, so named because of the

A

irregularly shaped spots on its back and legs,

B

are found throughout much of North America.

C D

No error

E



27. Commercial growers tend to breed tomato plants for
A
 qualities that increase the profitability of a crop, such
B
 as resistance of disease, rather than for flavor and
C D
 nutritional value. No error
E
28. Historically, fewer than twenty percent of the pop
A
 songs identified by music executives as likely to be
B C
 hits have performed as expected. No error
D E
29. That the country is now politically stable and
A
 economically robust and will almost certainly
B
 continue to do so is no longer seriously doubted.
C D
No error
E

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

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

Questions 30-35 refer to the following passage.

(1) Until recently, university librarians safeguarded rare books and manuscripts from all but the most scholarly hands. (2) Given the fragility of such materials, preservation should outweigh accessibility. (3) Inexperienced college students, nonetheless, were assumed to have little need to access rare holdings. (4) But many librarians started questioning this. (5) They noted that certain rare works, such as those printed on animal skin, are sturdier than previously thought. (6) In the case of fragile documents, they reasoned, increased access could protect works. (7) It could reveal damage, such as mold growth, that might otherwise spread. (8) Thus, if students were given basic training in handling fragile documents, they could actually help preserve the collection by reporting damage. (9) After all, only through hands-on contact could a student fully observe and analyze the great care taken in binding and illustrating a first edition *Robin Hood* or the handwriting on a letter from Anne Boleyn. (10) Thanks to the librarians' shift in thinking, students in many universities are gaining just this kind of access to rare documents. (11) Literature students can analyze D. H. Lawrence's careful revisions to the text of *Sons and Lovers*. (12) Similarly, history students are able to turn the pages of magazines in which monthly installments of *Oliver Twist* were originally published amid ads for saddle and ointments. (13) This sort of access allows them to experience Dickens' novel in much the same way its first readers in the 1830s did. (14) Even art students benefited: they gained a deeper appreciation of artist-designed books—which are as unique as paintings or sculptures—by viewing them firsthand.



30. In context, which would be best to place at the beginning of sentence 2 (reproduced below) ?

Given the fragility of such materials, preservation should outweigh accessibility.

- (A) Their thinking behind this was that,
- (B) They now say that,
- (C) They believed that,
- (D) As it happens, though,
- (E) Moreover, it seems that,

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

Inexperienced college students, nonetheless, were assumed to have little need to access rare holdings.

- (A) (as it is now)
- (B) in particular
- (C) however
- (D) broadly speaking
- (E) fortunately

32. In context, which of the following phrases would most effectively replace the word “this” in sentence 4 (reproduced below) ?

But many librarians started questioning this.

- (A) them
- (B) the purpose of rare documents
- (C) the wisdom of this
- (D) all of that
- (E) the validity of such thinking

33. In context, which of the following is the most effective way to revise and combine sentences 6 and 7 (reproduced below) at the underlined portion?

In the case of fragile documents, they reasoned, increased access could protect works. It could reveal damage, such as mold growth, that might otherwise spread.

- (A) They reasoned that increased access to fragile documents, by revealing damage, could protect works
- (B) Even in the case of fragile documents, they reasoned, increased access could protect works by revealing damage
- (C) Consequently, in the case of fragile documents, they reasoned that increased access could protect works, revealing damage
- (D) But their reasoning was that in the case of fragile documents, increased access could protect works by revealing damage
- (E) Although increased access could protect fragile documents, they reasoned, in revealing damage

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

Even art students benefited: they gained a deeper appreciation of artist-designed books—which are as unique as paintings or sculptures—by viewing them firsthand.

- (A) (as it is now)
- (B) benefited, having gained
- (C) can benefit, gaining
- (D) are benefiting, as they gained
- (E) who benefit by gaining

35. Where in the passage would the following sentence best be inserted?

Moreover, the librarians realized that, by handling rare documents, students could gain much information not obtainable from electronic or printed copies.

- (A) Immediately after sentence 2
- (B) Immediately after sentence 4
- (C) Immediately after sentence 8
- (D) Immediately after sentence 11
- (E) Immediately after sentence 14

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

20 Questions

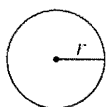
Turn to Section 7 (page 6) of your answer sheet to answer the questions in this section.

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

Notes

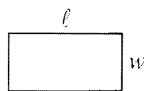
- The use of a calculator is permitted.
- All numbers used are real numbers.
- Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is not 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

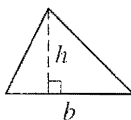


$$A = \pi r^2$$

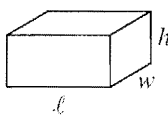
$$C = 2\pi r$$



$$A = lw$$



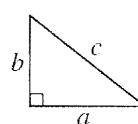
$$A = \frac{1}{2}bh$$



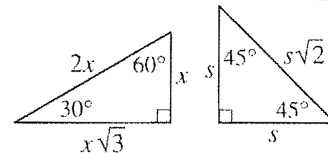
$$V = lwh$$



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



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



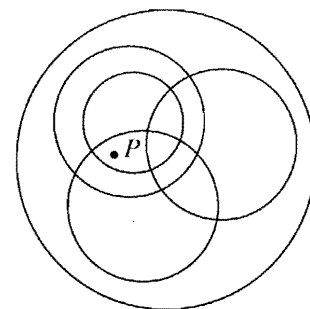
Special Right Triangles

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. Multiplying a number by $\frac{1}{2}$ gives the same result as dividing that number by which of the following?

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

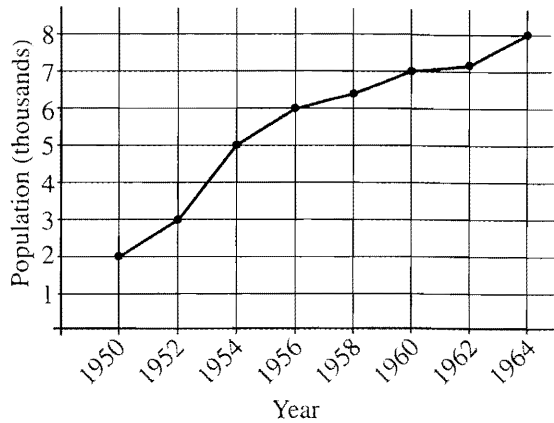


2. The point P is inside how many of the five circles in the figure above?

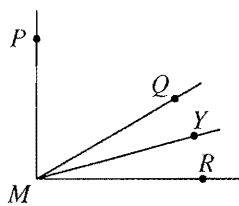
- (A) One
 (B) Two
 (C) Three
 (D) Four
 (E) Five

GO ON TO THE NEXT PAGE

POPULATION OF VICTORVILLE



3. The line graph above shows the population of Victorville recorded every two years from 1950 to 1964. According to the graph, for which of the following two-year periods was the population increase greatest?
- (A) 1950–1952
 (B) 1952–1954
 (C) 1954–1956
 (D) 1956–1958
 (E) 1958–1960



Note: Figure not drawn to scale.

4. In the figure above, $\overline{MP} \perp \overline{MR}$. If the measure of $\angle PMQ$ is 70° and \overline{MY} bisects $\angle QMR$, what is the measure of $\angle PMY$?
- (A) $72\frac{1}{2}^\circ$
 (B) 75°
 (C) $77\frac{1}{2}^\circ$
 (D) 80°
 (E) 85°

5. Emily is selling brownies for her school fund-raiser. The profit P , in dollars, from Emily's brownie sale can be modeled by the function $P(b) = 0.75b - 8$, where b is the total number of brownies she sells. Based on the model, how many brownies must Emily sell to make a profit of \$25.00?

- (A) 11
 (B) 23
 (C) 33
 (D) 44
 (E) 55

6. If $\frac{1}{2}(4x + 2n) = 2x + 6$ for all values of x , then $n =$
- (A) 3
 (B) 4
 (C) 6
 (D) 12
 (E) 24

GO ON TO THE NEXT PAGE

2, 3, 4, 6, 8, 12, 15, 18

7. A number is to be selected at random from the list above. What is the probability that the number selected will be a multiple of both 2 and 3?

(A) $\frac{1}{8}$

(B) $\frac{1}{4}$

(C) $\frac{3}{8}$

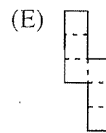
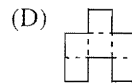
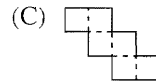
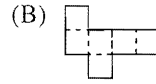
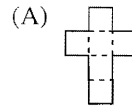
(D) $\frac{5}{8}$

(E) 1

8. Jesse finds that by selecting from the different combinations of the jackets, pants, and shirts that he owns, he can create up to 60 different outfits, each consisting of one jacket, one pair of pants, and one shirt. If he owns 3 jackets and 5 shirts, how many pairs of pants does Jesse own?

- (A) 4
(B) 5
(C) 6
(D) 12
(E) 15

9. Which of the following CANNOT be folded along the dashed lines to form a closed cube?



10. Teresita worked part-time for 2 weeks in a pharmacy.

During the second week, she worked $1\frac{1}{2}$ times the number of hours that she worked during the first week. If she worked a total of 25 hours during the 2-week period, how many hours did Teresita work during the second week?

- (A) 8
(B) 9
(C) 10
(D) 12
(E) 15

GO ON TO THE NEXT PAGE

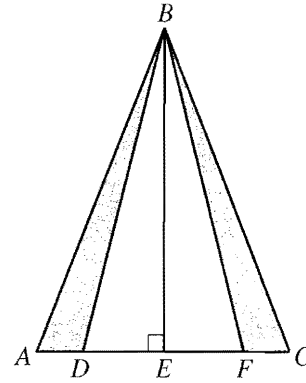
$$a = x^2$$

$$b = (x+1)(x-1)$$

$$c = (x+1)^2$$

11. If $x \geq 0$ in the three equations above, what is the ordering of a , b , and c ?
- (A) $a < b < c$
 (B) $b < a < c$
 (C) $b < c < a$
 (D) $c < a < b$
 (E) $c < b < a$

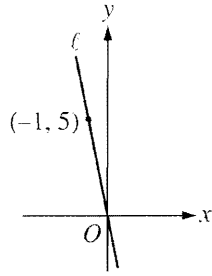
12. The digits of a 2-digit integer are K and V . If $10 \cdot K + V = 16$, which of the following equals 61 ?
- (A) $10 \cdot V + K$
 (B) $\frac{10}{V} + K$
 (C) $\frac{10}{K} + V$
 (D) $\frac{K \cdot V}{10}$
 (E) $\frac{10}{K \cdot V}$



13. In the figure above, $AC = 8$, $BA = BC$, $BD = BF$, $BE = 10$, and $AD = 1.5$. What is the total area of the shaded regions?
- (A) 5
 (B) 10
 (C) 15
 (D) 20
 (E) 40

14. If $|ax - 1| \leq 1$, where a is a positive even integer, which of the following CANNOT be a value of x^2 ?
- (A) 0
 (B) $\frac{1}{4}$
 (C) $-\frac{1}{2}$
 (D) 1
 (E) 4

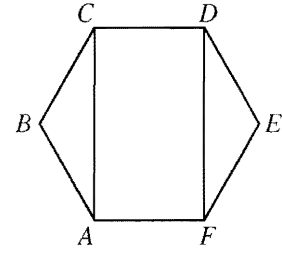
GO ON TO THE NEXT PAGE



15. In the xy -plane above, line k (not shown) is perpendicular to line l . What is the slope of line k ?
- (A) 5
(B) $\frac{1}{5}$
(C) $-\frac{1}{5}$
(D) -1
(E) -5

$$\frac{A}{8} + \frac{2}{9} = \frac{B}{72}$$

16. In the equation above, if A represents a positive integer, which of the following could be the value of B ?
- (A) 7
(B) 16
(C) 18
(D) 26
(E) 34



17. In the figure above, $ABCDEF$ is a regular hexagon and $AB = 2$. What is the area of rectangle $ACDF$?
- (A) $4\sqrt{3}$
(B) $4\sqrt{2}$
(C) $3\sqrt{3}$
(D) $3\sqrt{2}$
(E) $2\sqrt{3}$

$$\begin{aligned} mx + py &= 10 \\ (m+1)x + py &= 14 \end{aligned}$$

18. Based on the equations above, which of the following must be true?
- (A) $x = 2$
(B) $x = 4$
(C) $y = 6$
(D) $y = 8$
(E) $y - x = 2$

GO ON TO THE NEXT PAGE

19. The function f is defined by $f(x) = 2x^2 - 5$. What are all possible values of $f(x)$ where $-2 < x < 2$?
- (A) $-5 \leq f(x) < 0$
(B) $-5 \leq f(x) < 3$
(C) $0 \leq f(x) < 3$
(D) $0 \leq f(x) < 8$
(E) $2 \leq f(x) < 8$
20. Each of the 75 children in a line was assigned one of the integers from 1 through 75 by counting off in order. Then, standing in the same order, the children counted off in the opposite direction, so that the child who was assigned the number 75 the first time was assigned the number 1 the second time. Which of the following is a pair of numbers assigned to the same child?
- (A) 50 and 25
(B) 49 and 24
(C) 48 and 26
(D) 47 and 29
(E) 45 and 32

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

19 Questions

Turn to Section 8 (page 7) of your answer sheet to answer the questions in this section.**Directions:** For each question in this section, select the best answer from among the choices given and fill in the corresponding circle on the answer sheet.

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

Example:

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

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

(A) (B) (C) (D) ●

- The most objectionable passages in the novel were ----- at the insistence of the censors.
 (A) deleted (B) published (C) advertised
 (D) restored (E) celebrated
- Saul Williams has won critical acclaim as a musician, poet, and actor, demonstrating that he is both versatile and -----.
 (A) melodic (B) modest (C) accomplished
 (D) dismissive (E) overcommitted
- Anyone serving as transportation commissioner must become accustomed to public criticism, and indeed Henderson is now quite ----- it.
 (A) vulnerable to (B) irritated by (C) injured to
 (D) repentant about (E) fractious about
- Increasingly, nurse practitioners are ----- the heavy workload of physicians by performing medical tasks once thought to be the exclusive ----- of doctors.
 (A) amassing . . . assertion
 (B) compounding . . . problem
 (C) scheduling . . . prerogative
 (D) reducing . . . embodiment
 (E) lessening . . . province
- Brenda's job was by no means -----: she actually had to work quite hard for her salary.
 (A) a conundrum (B) a sinecure
 (C) a castigation (D) an enumeration
 (E) an appraisal
- The first Moon explorers were rarely expansive in describing their surroundings; on the contrary, their reports tended to be -----.
 (A) laconic (B) histrionic (C) cohesive
 (D) extemporaneous (E) implacable



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

Questions 7-19 are based on the following passages.

The passages below, adapted from works published in 2008, discuss short, technologically driven communications such as instant messages, sent to and from computers, and text messages, sent to and from mobile devices such as cell phones.

Passage 1

A few years back, I did an interview on the possible effects of instant messaging (IM) on the writing of teenagers. The other guest, himself a polished writer, extolled the benefits that IM seemed destined to have upon the next generation's writing abilities. I countered with the proverbial case of monkeys and typewriters: however long they pound away, they are unlikely to produce Shakespeare.

More recently, I have begun to suspect that the situation is even more troubling. Could it actually be that the more we write online, the *worse* writers we become? I'm not talking about whether the usual litany of acronyms and abbreviations (such as 2 for "to" or "two," or *btw* for "by the way") is seeping into everyday writing, or whether our e-mails are laced with misspelled words or minimalist punctuation. Rather, my concern is more profound: is the sheer fact that we are replacing so much of our spoken interaction with written exchanges gradually eroding a public sense that the quality of writing matters?

I vividly recall an article in early 2000, in which the reviewer despaired over the profusion of spelling and punctuation mistakes he had found in the text at hand (which, incidentally, had been published by a highly respected press). Worse still, he noted, this book was not unique. Sardonicly, he mused that about ten years earlier, all competent proofreaders must have disappeared. But is the problem actually the proofreaders? Or might it be that we the readers (who ourselves are often writers) are less fussy than we used to be? Is it that we *could* proofread—we know the rules—but no longer care to do so?

In 2003, John McWhorter wrote *Doing Our Own Thing: The Degradation of Language and Music and Why We Should, Like, Care*, in which he argued that contemporary Americans, unlike earlier generations and unlike many other cultures, do not particularly care about their language. In McWhorter's words, "Americans after the 1960s have lived in a country with less pride in its language than any other society in recorded history." While I believe McWhorter is substantially correct, his point is not the one I am making here. My own argument is that the inordinate

amount of text that literate Americans produce is diminishing our sense of written craftsmanship. Ultimately, bad writing is driving good writing out of circulation.

Passage 2

There is a curious ambivalence around. Complaints are made about children's poor literacy, and then, when a technology arrives that provides fresh and motivating opportunities to read and write, such as e-mail, chat, blogging, and texting, complaints are made about that. The problems associated with the new medium—such as new abbreviation styles—are highlighted and the potential benefits ignored. I heard someone recently complaining that "children don't keep diaries anymore." The speaker was evidently unaware that the online diary—the blog—is one of the most popular areas of Internet activity among young people.

A couple of axioms might be usefully affirmed at this point. I believe that any form of writing exercise is good for you. I also believe that anything which helps develop your awareness of different properties, styles, and effects of writing is good for you. It helps you become a better reader, more sensitive to nuance, and a better writer, more sensitive to audience. Texting language is no different from other innovative forms of written expression that have emerged in the past. It is a type of language whose communicative strengths and weaknesses need to be appreciated. If it were to take its place alongside other kinds of writing in school curriculums, students would soon develop a strong sense of when it is appropriate to use it and when it is not. It is not as if the school would be teaching them something totally new. Many Web sites are already making texters aware that there are some situations in which it is inappropriate to use texting abbreviations, because they might not be understood.

This might seem self-evident, yet when a text-messaging unit was included as an option in the English curriculum in schools in Victoria, Australia, for eighth- to tenth-grade students, it was condemned by no less a person than the federal minister of education. The students were taught to translate text messages, write glossaries of abbreviations, and compare the language of texting with that of formal English. Stylistic comparisons of this kind have long proved their worth in English classes. The minister was reported as urging a return to "basics." But what could be more basic, in terms of language acquisition, than to focus on students' developing sense of linguistic appropriateness?



7. The primary concern of both passages is to
- describe a new method of teaching writing
 - suggest a means of improving how young people communicate with one another
 - discuss the effects of current technologies on written language
 - offer an explanation for teenagers' fascination with text messages
 - question the importance of technology to education
8. Which best states the relationship between the two passages?
- Passage 1 outlines a course of action that Passage 2 reveals to be risky and dangerous.
 - Passage 1 denounces the influence of a technology that Passage 2 argues is actually a positive force.
 - Passage 1 offers a historical overview of a phenomenon that Passage 2 rejects as ultimately insignificant.
 - Passage 1 discusses a personal experience with a technology that Passage 2 analyzes more objectively.
 - Passage 1 decries a common practice that Passage 2 criticizes less passionately.
9. The author of Passage 2 would most likely respond to the views of the "guest" (line 3, Passage 1) with
- impatience
 - dismissal
 - disbelief
 - amusement
 - agreement
10. The author of Passage 2 would most likely offer which response to the question posed in lines 10-11, Passage 1?
- Yes, because writing casually makes people careless about more formal discourse.
 - Yes, because people must first be educated if they are to become effective online writers.
 - Maybe, because using abbreviations can hinder people from writing more efficiently.
 - No, because online writers are more accomplished than traditional writers.
 - No, because any practice in writing will improve a writer's skills.
11. Both passages acknowledge that the "acronyms and abbreviations" (lines 12-13, Passage 1) and the "abbreviation styles" (line 50, Passage 2) have
- improved the speed at which communication can take place
 - allowed young people to gain confidence in their own written expression
 - grown less popular as mobile technologies have become more sophisticated
 - been viewed as damaging to the general quality of writing
 - proved unusually difficult for many adults to master
12. The parenthetical statement in lines 13-14 serves primarily to
- criticize certain practices
 - offer particular examples
 - suggest alternative solutions
 - describe past events
 - anticipate potential objections
13. The title of John McWhorter's book (lines 31-33) is best characterized as
- overwrought in its ominous foreshadowing
 - contradictory in its attempt to attract readers
 - witty in its broad inclusion of the arts
 - satirical in its intentional use of informal diction
 - passionate in its purposeful attack on a convention
14. In lines 44-48 ("Complaints . . . that"), the author of Passage 2 refers to a situation best described as
- paradoxical
 - melodramatic
 - metaphorical
 - speculative
 - typical
15. In line 45, "poor" most nearly means
- petty
 - needy
 - barren
 - humble
 - inadequate



16. In line 46, “fresh” most nearly means
- (A) pure
 - (B) restored
 - (C) raw
 - (D) new
 - (E) recent
17. In lines 56-62 (“A couple . . . audience”), the author supports an argument with
- (A) nostalgic anecdotes
 - (B) historical precedents
 - (C) personal convictions
 - (D) idealistic hopes
 - (E) hypothetical assumptions
18. In lines 78-82 (“The students . . . classes”), the author’s attitude toward the class content is best described as one of
- (A) disdain
 - (B) annoyance
 - (C) uncertainty
 - (D) curiosity
 - (E) appreciation
19. Compared with the author of Passage 1, the author of Passage 2 views changes like texting language as possessing
- (A) more appeal for writers of narratives
 - (B) more potential for inhibiting critical thinking
 - (C) more continuity with traditional forms of discourse
 - (D) less capacity for encouraging young people to enjoy writing
 - (E) less power to make a genuine impact on society

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

16 Questions

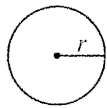
Turn to Section 9 (page 7) of your answer sheet to answer the questions in this section.

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

Notes

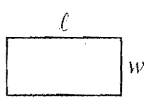
- The use of a calculator is permitted.
- All numbers used are real numbers.
- Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is not 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

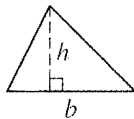


$$A = \pi r^2$$

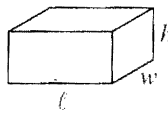
$$C = 2\pi r$$



$$A = \ell w$$



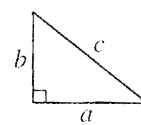
$$A = \frac{1}{2}bh$$



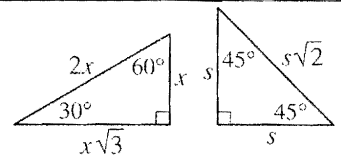
$$V = \ell wh$$



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



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



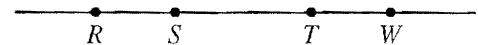
Special Right Triangles

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
- $s = p - 3p$
- , what is the value of
- s
- when
- $p = 2$
- ?

- (A) -5
 (B) -4
 (C) -3
 (D) 7
 (E) 8

Note: Figure not drawn to scale.

2. In the figure above,
- $RW = 24$
- and
- $RS = TW$
- .
-
- If
- $RS = 4$
- , what is the length of
- \overline{ST}
- ?

- (A) 6
 (B) 8
 (C) 10
 (D) 12
 (E) 16

GO ON TO THE NEXT PAGE

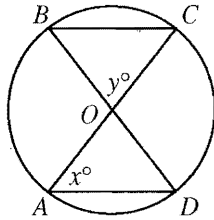


0, 3, 8, 15, 24, 35, ...

3. The sequence above is formed by listing in increasing order all the numbers that are 1 less than the square of a positive integer. What number in the sequence immediately follows 35?
- (A) 44
(B) 45
(C) 48
(D) 49
(E) 50

5. Let $r \diamond s$ be defined by $r \diamond s = r - (s + rs)$ for all values of r and s . What is the value of $4 \diamond 5$?

- (A) -21
(B) -19
(C) 19
(D) 21
(E) 25



Note: Figure not drawn to scale.

4. In the figure above, points A , B , C , and D lie on the circle with center O . If $y = 60$, what is the value of x ?
- (A) 30
(B) 40
(C) 45
(D) 50
(E) 60

GO ON TO THE NEXT PAGE



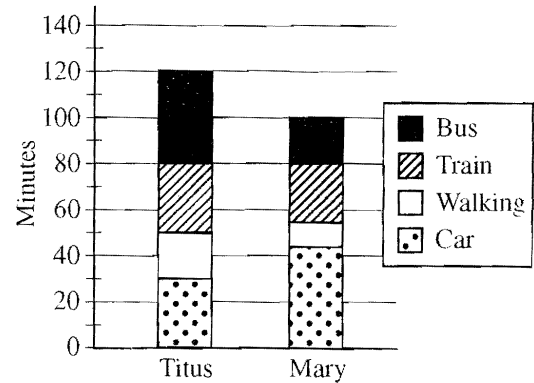
6. If $\sqrt{u^2} = 4$ and $u > 0$, what is the value of u ?

- (A) 2
- (B) 4
- (C) 8
- (D) 16
- (E) 64

7. In the xy -plane, the line segment with endpoints $(2, 2)$ and $(5, 2)$ forms one side of a square. What is the perimeter of the square?

- (A) 6
- (B) 9
- (C) 12
- (D) 20
- (E) 28

TIME SPENT TRAVELING BY FOUR
DIFFERENT MODES OF TRAVEL



8. The figure above shows the times Titus and Mary spent traveling by four different modes of travel. Titus and Mary traveled by car at the same average rate. Titus traveled 20 miles by car. Of the following, which is the best approximation for how far Mary traveled by car?

- (A) 15 miles
- (B) 30 miles
- (C) 45 miles
- (D) 60 miles
- (E) 75 miles

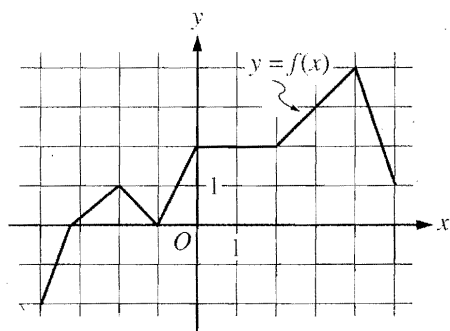
GO ON TO THE NEXT PAGE



$$k = 3w + 2$$

9. In the equation above, if w is increased by 2, by how much does k increase?

(A) 2
(B) 3
(C) 5
(D) 6
(E) 8



10. The graph of the function f is shown in the xy -plane above. When the graph of f is reflected about the x -axis, the result is the graph of the function g . What is the value of $g(2)$?

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

11. Katy is drawing a time line to represent a 200-year period of time. If she makes the time line 60 inches long and draws it to scale, how many inches will represent each year?

(A) $\frac{3}{10}$
(B) $2\frac{1}{10}$
(C) $2\frac{1}{2}$
(D) $3\frac{1}{6}$
(E) $3\frac{1}{3}$

GO ON TO THE NEXT PAGE



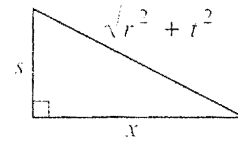
If a number is in list X , it is also in list Y .

12. If the statement above is true, which of the following statements must also be true?

- (A) If a number is in list Y , it is also in list X .
 (B) If a number is in list Y , it is not in list X .
 (C) If a number is not in list Y , it is not in list X .
 (D) If a number is not in list Y , it is in list X .
 (E) If a number is not in list X , it is not in list Y .

13. The median age of a group of 15 students is 17 years. If the oldest student in the group is 20 years old, which of the following could be the number of 17 year olds in the group?

- I. 3
 II. 10
 III. 14
- (A) I only
 (B) I and II only
 (C) I and III only
 (D) II and III only
 (E) I, II, and III



14. In the figure above, what is the value of x in terms of r , s , and t ?

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



15. If 6 times j is 1 more than the square of k , where k is an integer, what is the smallest possible value of j ?

- (A) -5
- (B) $-\frac{1}{6}$
- (C) 0
- (D) $\frac{1}{6}$
- (E) It cannot be determined from the information given.

16. If the radius of a circle is tripled, by what percent is the area of the circle increased?

- (A) 200%
- (B) 300%
- (C) 400%
- (D) 500%
- (E) 800%

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. Although today's children certainly need to learn to type on computer keyboards, they also need to develop legible handwriting for doing homework, completing classwork, and to take notes.

- (A) and to take notes
- (B) and whenever taking notes is done
- (C) and taking notes
- (D) also taking notes
- (E) with taking notes being included

2. While visiting our cousins in the Spanish city of Granada, the palace and fortress called the Alhambra was seen, with its splendid courts, fountains, and gardens.

- (A) the palace and fortress called the Alhambra was seen, with its
- (B) the palace and fortress called the Alhambra was what we saw; it has
- (C) we saw the Alhambra, a palace and fortress; it has
- (D) we saw the Alhambra, a palace and fortress with
- (E) seeing the Alhambra, a palace and fortress with

3. Bees that are fed pollen from a range of different plants appear to have healthier immune systems than do bees that are fed pollen from a single type of plant.

- (A) plants appear to have healthier immune systems
- (B) plants and appear to have a healthier immune system
- (C) plants, appearing to have healthier immune systems
- (D) plants, which appear to have a healthier immune system
- (E) plants, their immune systems appear healthier

4. When driving in hilly areas on icy roads, snow tires are what you need on your vehicle for traction.

- (A) snow tires are what you need on your vehicle for traction
- (B) there is a need for snow tires on your vehicle for traction
- (C) what is needed for traction is snow tires on your vehicle
- (D) traction requires snow tires on your vehicle
- (E) you need snow tires on your vehicle for traction



5. In 1977 Tracy Austin became the youngest tennis player to win a professional tournament when she captured a title in Oregon aged fourteen years.
- (A) tournament when she captured a title in Oregon aged fourteen years
 (B) tournament aged fourteen years when she captured a title in Oregon
 (C) tournament when she captured a title in Oregon, being age fourteen
 (D) tournament when, at the age of fourteen, she captured a title in Oregon
 (E) tournament, she was fourteen years old when she captured a title in Oregon
6. Slightly more than 48 percent of the country's population lives in urban areas, where the remainder lives in rural communities.
- (A) areas, where the remainder lives
 (B) areas, with the remainder living
 (C) areas, the remainder lives
 (D) areas; but the remainder living
 (E) areas, the remainder is living
7. By removing vital nutrients from the water, a decline in Lake Michigan's fish populations was caused by quagga mussels.
- (A) a decline in Lake Michigan's fish populations was caused by quagga mussels
 (B) Lake Michigan's declining fish populations were caused by quagga mussels
 (C) Lake Michigan's fish populations are declining, caused by quagga mussels
 (D) quagga mussels having caused a decline in Lake Michigan's fish populations
 (E) quagga mussels have caused a decline in Lake Michigan's fish populations
8. Most inks used today contain chemical pigments that are nonbiodegradable and can prevent paper products from being recyclable, pigments made from algae break down more easily.
- (A) from being recyclable, pigments
 (B) from being recyclable, but pigments
 (C) to be recyclable, while pigments
 (D) being recyclable unlike pigments
 (E) so that they are not recyclable, however pigments
9. The transformation of an animal into a person, or the reverse, are parts of many a folktale.
- (A) reverse, are parts
 (B) reverse, are a part
 (C) reverse, is part
 (D) reverse; they are parts
 (E) reverse being part
10. A professional chocolate buyer recently said that his job is much easier than how it was for his predecessors because he can search the Internet for new chocolate products.
- (A) how it was for his predecessors
 (B) his predecessors
 (C) his predecessors who did it
 (D) those who preceded him
 (E) that of his predecessors



11. The port city of Shanghai, which along with Hong Kong is a leading Chinese banking and manufacturing center.
- (A) Shanghai, which along with Hong Kong is
(B) Shanghai is, along with Hong Kong,
(C) Shanghai, along with Hong Kong being
(D) Shanghai, along with Hong Kong
(E) Shanghai and Hong Kong are
12. Like her husband, Jackson Pollock, Lee Krasner was an Abstract Expressionist artist, and her and Pollock influenced each other's work.
- (A) her and Pollock influenced
(B) she and Pollock influenced
(C) she and Pollock having influenced
(D) herself and Pollock influencing
(E) the two of them both influenced
13. Despite living only to the age of forty, the music of John Coltrane, it inspired a generation of writers, musicians, and artists.
- (A) the music of John Coltrane, it
(B) the music of John Coltrane
(C) John Coltrane's music
(D) John Coltrane created music that
(E) John Coltrane created music, it
14. The swiftest animal on Earth, the cheetah can reach a top speed of about 70 miles per hour, it can maintain that speed for no more than 300 yards.
- (A) hour, it can
(B) hour but can
(C) hour, though they can
(D) hour, but they can
(E) hour, however, it can

STOP

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

Correct Answers and Difficulty Levels Form Codes AEIC, BWIC

Critical Reading

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

Number correct	Number correct	Number correct
Number incorrect	Number incorrect	Number incorrect

Mathematics

Section 4			Section 7			Section 9		
Multiple-Choice Questions		Student-Produced Response Questions	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.
COR. DIFF. ANS. LEV.	COR. ANS.	DIFF. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.	COR. DIFF. ANS. LEV.
1. A 1	9. 20	1	1. C 1	11. B 3	1. B 1	9. D 3		
2. C 2	10. 13	2	2. D 1	12. A 3	2. E 1	10. A 3		
3. D 2	11. 231	3	3. B 1	13. C 3	3. C 1	11. A 3		
4. B 2	12. 3	2	4. D 1	14. E 3	4. E 1	12. C 4		
5. E 2	13. 190	3	5. D 1	15. B 3	5. A 2	13. E 4		
6. B 3	14. $5 < x < 6$	3	6. C 2	16. E 3	6. B 1	14. D 3		
7. D 3	15. 34	3	7. C 2	17. A 5	7. C 2	15. D 5		
8. B 3	16. $5/3, 1.66, 1.67$	4	8. A 2	18. B 4	8. B 3	16. E 5		
	17. $4/5, .8$	4	9. D 3	19. B 4				
	18. 4095	4	10. E 3	20. D 5				

Number correct	Number correct (9-18)	Number correct
Number incorrect	Number incorrect	Number incorrect

Writing Multiple-Choice

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

Number correct	Number correct
Number incorrect	Number incorrect

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

Scoring Worksheet for Form Codes AEIC, BWIC

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

Get Your Critical Reading Score

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

Section 2: Questions 1–23 _____

Section 5: Questions 1–25 + _____

Section 8: Questions 1–19 + _____

Total = _____ (A)

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

Section 2: Questions 1–23 _____

Section 5: Questions 1–25 + _____

Section 8: Questions 1–19 + _____

Total = _____

× 0.25 = _____ (B)

A – B = _____
Critical Reading
Raw Score

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

Use the table on page 53 to find your critical reading scaled score.

Get Your Mathematics Score

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

Section 4: Questions 1–18 _____

Section 7: Questions 1–20 + _____

Section 9: Questions 1–16 + _____

Total = _____ (A)

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

Section 4: Questions 1–8 _____

Section 7: Questions 1–20 + _____

Section 9: Questions 1–16 + _____

Total = _____

× 0.25 = _____ (B)

A – B = _____
Mathematics Raw Score

Round the mathematics raw score to the nearest whole number.

Use the table on page 53 to find your mathematics scaled score.

Get Your Writing Score

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

Section 6: Questions 1–35 _____

Section 10: Questions 1–14 + _____

Total = _____ (A)

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

Section 6: Questions 1–35 _____

Section 10: Questions 1–14 + _____

Total = _____

× 0.25 = _____ (B)

A – B = _____
Writing Multiple-Choice
Raw Score

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

_____ (C)

Use the table on page 53 to find your writing multiple-choice scaled score.

Copy your essay score from your QAS report.

_____ (D)

Use the appropriate writing composite table (pages 54–55) for your form code and look up your writing multiple-choice raw score (C) and your essay score (D) to find your writing composite scaled score.

SAT Score Conversion Table Form Codes AEIC, BWIC

Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Multiple-Choice Scaled Score	Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Multiple-Choice Scaled Score
67	800			31	500	530	53
66	800			30	490	520	52
65	800			29	480	520	51
64	780			28	480	510	51
63	760			27	470	500	50
62	750			26	470	490	49
61	730			25	460	480	48
60	720			24	450	470	47
59	710			23	450	470	46
58	700			22	440	460	45
57	690			21	430	450	44
56	680			20	430	440	44
55	670			19	420	430	43
54	660	800		18	410	430	42
53	650	790		17	410	420	41
52	640	760		16	400	410	40
51	630	740		15	390	400	39
50	620	720		14	390	390	39
49	620	700	80	13	380	390	38
48	610	690	78	12	370	380	37
47	600	680	75	11	360	370	36
46	590	670	73	10	350	360	35
45	590	660	71	9	350	350	34
44	580	650	69	8	340	340	33
43	570	640	68	7	330	330	32
42	570	630	66	6	320	320	31
41	560	620	65	5	310	310	30
40	550	610	63	4	300	300	29
39	550	600	62	3	280	280	27
38	540	590	61	2	270	270	26
37	540	580	60	1	260	250	24
36	530	580	58	0	240	230	22
35	520	570	57	-1	220	210	20
34	520	560	56	-2	200	200	20
33	510	550	55	and			
32	500	540	54	below			

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

SAT Writing Composite Score Conversion Table

Form Code AEIC

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

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