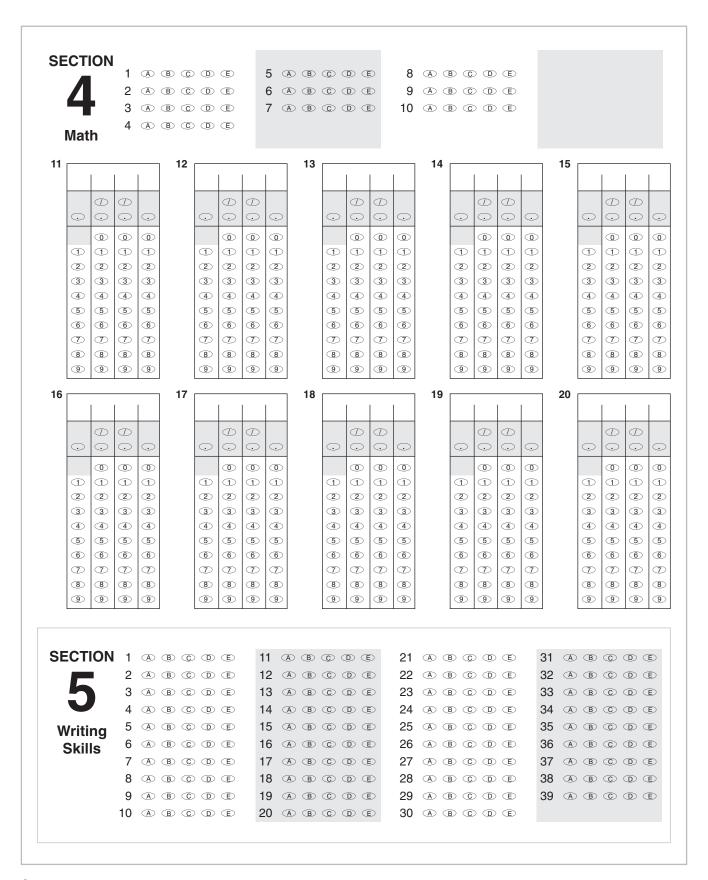
Answer Sheet

SECTION	1 A B C D E	8 (A) (B) (C) (D) (E)	15 A B C D E	22 A B C D
A	2 A B C D E	9 A B C D E	16 A B C D E	23 A B C D
1	3 (A) (B) (C) (E)	10 A B C D E	17 A B C D E	24 A B C D
	4 A B C D E	11 A B C D E	18 A B C D E	25 A B C D
0	5 A B C D E	12 A B C D E	19 A B C D E	
Critical	6 A B C D E	13 A B C D E	20 A B C D E	
Reading	7 A B C D E	14 A B C D E	21 A B C D E	
	,	11 0 0 0 0 0	21 0 0 0 0 0	
SECTION	1 A B C D E	8 A B C D E	15 A B C D E	
	2 A B C D E	9 A B C D E	16 A B C D E	
7	3 (A) (B) (C) (E)	10 A B C D E	17 A B C D E	
	4 (A) (B) (C) (D) (E)	11 A B C D E	18 A B C D E	
Math	5 A B C D E	12 A B C D E	19 A B C D E	
Matri	6 A B C D E	13 A B C D E	20 A B C D E	
	7 A B C D E	14 A B C D E		
SECTION	1 A B C D E	9 A B C D E	17 A B C D E	25 A B C D
	2 A B C D E	10 A B C D E	18 A B C D E	26 A B C D
	3 A B C D E	11 (A) (B) (C) (D) (E)	19 A B C D E	27 A B C D
	4 A B C D E	12 (A) (B) (C) (D) (E)	20 A B C D E	
Critical	5 A B C D E	13 (A) (B) (C) (D) (E)	21 (A) (B) (C) (D) (E)	
Reading	6 A B C D E	14 (A) (B) (C) (D) (E)	22 A B C D E	
	7 A B C D E	15 (A) (B) (C) (D) (E)	23 (A) (B) (C) (D) (E)	
	8 A B C D E	16 A B C D E	24 (A) (B) (C) (D) (E)	



Practice Test

1

Section 1—Critical Reading

Time—25 Minutes • 25 Questions

For each question below, choose the best answer from the choices given and fill in the corresponding oval on the answer sheet.

Directions: Each sentence below has either one or two blanks in it and is followed by five choices, labeled (A) through (E). These choices represent words or phrases that have been left out. Choose the word or phrase that, if inserted into the sentence, would best fit the meaning of the sentence as a whole.

Example:

Canine massage is a veterinary technique for calming dogs that are extremely _____.

- (A) inept
- (B) disciplined
- (C) controlled
- (**D**) stressed
- (E) restrained



- **1.** While maintaining an outward appearance of religious _____, medieval scholar Peter Abelard revealed, in his writings, hope for the triumph of reason over faith.
 - (A) heterodoxy
 - **(B)** orthodoxy
 - (C) incredulity
 - (**D**) vacillation
 - (**E**) skepticism

- **2.** My cat Lloyd loves to go for car rides and will jump into the back seat with ____ whenever he is invited.
 - (A) devotion
 - (B) aggravation
 - (**C**) dedication
 - **(D)** alacrity
 - **(E)** apathy

3. My sister Rose is a/an _____ person, always objecting to everything I want to do, while my brother Jamal is, by contrast, nearly always ____ (A) feisty..obedient (**B**) depressed..joyous (C) arrogant..disdainful (**D**) pretentious..carefree (E) contentious..accommodating **4.** The _____ of women in physics and astronomy is cause for concern, because it these sciences of the rich brain power of half the human race. (A) paucity..deprives **(B)** celebration..dispossesses (C) poverty..preempts (D) audacity..relieves scarcity..assures **5.** The monks of New Skete believe that dogs are often willing to please without hope of reward, that they are able to show a kind of _____ caring. (A) refractory (**B**) altruistic (C) incautious (**D**) preemptive

(E) precocious

Directions: Read each of the passages carefully, then answer the questions that come after them. The answer to each question may be stated overtly or only implied. You will not have to use outside knowledge to answer the questions—all the material you will need will be in the passage itself. In some cases, you will be asked to read two related passages and answer questions about their relationship to one another.

Questions 6–7 are based on the following passage.

This passage is from the U.S. State Department Web site.

- Line In 1963, in Moscow, the Treaty Banning Nuclear Weapon Tests (. . .) was signed by the United States, Great Britain, and the Soviet Union. The Test Ban Treaty of
- (5) 1963 prohibits nuclear weapons tests "or any other nuclear explosion" in the atmosphere, in outer space, and under water. While not banning tests underground, the Treaty does prohibit nuclear
- (10) explosions in this environment if they cause "radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control" the explosions were conducted. In accepting
- (15) limitations on testing, the nuclear powers accepted as a common goal "an end to the contamination of . . . [the human] environment by radioactive substances."

- **6.** Which word best describes the Test Ban Treaty of 1963?
 - (A) Comprehensive
 - (B) Intensified
 - (C) Inflated
 - (D) Limited
 - (E) Retroactive
- **7.** The passage suggests that the main purpose of the treaty was to prevent global
 - (A) warfare.
 - (**B**) detonation.
 - (C) pollution.
 - (**D**) duplicity.
 - (E) concession.

Questions 8–9 are based on the following passage.

This passage is based on an e-mail sent to Web site operators by the Federal Trade Commission beginning in November 2001.

- Line Your Web site claims that a product or therapy you sell is effective in the treatment or cure of anthrax, smallpox, or another disease or health hazard that
- (5) may be associated with recent reports about threats of terrorism. We are aware of no scientific basis for such claims.

 Without competent and reliable scientific evidence to substantiate these claims, the
- (10) claims are illegal under the Federal Trade Commission Act and must be discontinued immediately. Violations of the FTC Act may result in legal action in the form of Federal District Court Injunction or
- (15) Administrative Order. An order also may require that you pay money back to consumers.

- **8.** Which word best describes the purpose of the passage?
 - (A) Advice
 - (B) Warning
 - (C) Opinion
 - (**D**) Rejection
 - (E) Reminder
- **9.** The main purpose of the FTC e-mail is to command Web site owners to
 - (A) repay consumers.
 - (B) cease making false claims.
 - (C) stop making terrorist threats.
 - (**D**) find scientific evidence for claims.
 - (E) inform consumers the claims are false.

Questions 10–11 are based on the following passage.

This passage is adapted from an essay, "When Art and Morality Collide . . . ," by James Swafford (in National Endowment for the Arts magazine Humanities, July/August, 1997).

- Line In the 19th century, writer Oscar Wilde produced works that were widely deemed immoral. Of that historical period, 20th century essayist James Swafford writes:
- (5) What purpose do literature and the visual arts serve? What responsibilities must they assume? These were important questions in the last century, as increasing literacy, inexpensive editions, the rise
- (10) of lending libraries, public art exhibitions, and mass-produced prints from steel engravings made the verbal and visual arts available to the masses as never before Wilde ran afoul of [the
- (15) expectation of moral purpose] on several occasions "All art is quite useless," announces the last line of the preface to [Wilde's novel], *The Picture of Dorian Gray*.

- **10.** According to Swafford, questions about the purpose of art were important in the last century, because art had become increasingly
 - (A) admired.
 - **(B)** accessible.
 - (C) irresponsible.
 - (**D**) anti-Evangelical.
 - (E) nontraditional.
- **11.** What is the meaning of the phrase "ran afoul of" (line 14)?
 - (A) Denied the existence of
 - (B) Took up the cause of
 - (C) Played a part in
 - (**D**) Came in conflict with
 - (E) Showed ignorance of

Questions 12–20 are based on the following passage.

This passage discusses the works of Nobel Prize winner Isaac Bashevis Singer.

- Line In Isaac Bashevis Singer's fictional world, seeming dualities—past and present, animate and inanimate, the supernatural and the ordinary world of the senses,
- (5) even life and death—are not set in opposition or even juxtaposed, but rather they are fused, embedded in one another. There is no border between the cosmic and the mundane, because the two are
- (10) not separate countries. In Singer's stories, modes of existence usually thought to be dichotomous have their being on the same plane, and that plane is the world of matter, the world of phenomena.
- (15) In approaching the stories, it is helpful first to divide them into three types.

Those of the first type are set in the distant past, usually in the 17th or 18th

- (20) century, in the Jewish *shtetls* of Eastern Europe, villages in which the streets are narrow and muddy, and gossip is the important means of gathering and conveying information. The characters
- (25) include all sorts: rabbis, Hasidic scholars, wealthy businesspeople, students, prostitutes, and also supernatural beings, usually demons. Prominent among the characters is the scholar who withdraws
- (30) from the world to read and study the mystical *Cabala*—or attempts unsuccessfully to withdraw, for frequently he (and occasionally she) is distracted from study by sex, or demons, or some violent
- (35) outside force. Included in this group of stories are "The Slaughterer," the story of Yoineh Meir, a ritual slaughterer whose job it is to kill livestock in accordance with religious laws, a man obsessed with
- (40) guilt, who turns to the study of the *Cabala* even though he knows it is forbidden to young men; "Cockadoodledoo"—somewhat of an exception, since the narrator is a rooster, albeit one who wants to understand the nature of God;
- (45) wants to understand the nature of God; and "The Black Wedding," which features a demon. Around these stories, there is usually an aura of the folktale or fairy tale.
- (50) Stories of the second type have historical and geographical settings very different from those of the first. They usually take place in post World War II America, and many times are set in New
- (55) York City. As in the first type, the central characters are Jewish, although they are not necessarily orthodox. Like the characters in the first type, they represent all classes, from affluent businesspeople
- (60) and physicians, to writers, to the poor of all sorts. There are some supernatural characters, as well, but the characters in

this type are predominantly human.

Prominent among them is a certain kind of male character who is financially successful, but who is troubled by the ordinary human concerns of love and sex, physical illness, the riddle of death, and the nature of reality. The study of

(70) philosophy—Kant and Spinoza are favorites—replace the study of the sacred books common to the first type of story.

Among the stories in this group are "A Wedding in Brownsville" and "The

(75) Cafeteria" (both of which are discussed below), as well as "The Seance," in which it is ambiguous whether the rouged and mascaraed medium, Mrs. Kopitzky, is a fake. She "more than once" awakes from trances to talk on the

phone about "stocks, bonds, and dividends," yet at the end of the story her skeptical boarder, Dr. Kalisher, seems to half-believe she is authentic.

(85) Stories of the third type are confined to no particular time period and to no particular location—sometimes they are set in the ordinary human world and sometimes not. The distinctive feature of (90) this type is that its central characters are supernatural beings, usually demons but occasionally angels or disembodied souls.

No matter how fantastical their natures.

however, these creatures, like their human counterparts in the other story types, often wonder about the nature of God or reality, and they are frequently beset by problems that originate in the human world. Representative of this

(100) group are "Shiddah and Kuziba," in which two demons, mother and son, find that their home, "nine yards inside the earth," is being destroyed by a drill operated by the mysterious humans who (105) occupy the world above them; and "The

Last Demon," in which a demon declares there are no demons left—"Why demons, when man himself is a demon?" (In the demonic tales, it is frequently unclear (110) which is more evil, humans or demons.)

The characters, settings, and historical periods in Singer's stories, then, vary widely, yet under the surface there are striking similarities. Everywhere in them,

(115) the reader finds opposites, contraries, ambiguities. In the story "The Slaughterer," the ritual slaughterer develops "an unfamiliar love" for "all that crawls and flies, breeds and swarms." In "The

(120) Cafeteria," the dead of the Nazi holocaust—both perpetrators and victims—come to sit in a cafeteria on Broadway. In "A Wedding in Brownsville," a dead man, not realizing until the end of the

(125) story that he is dead, attends a wedding and sees among the other guests a woman he once loved, who died in the holocaust. (The dead often walk about in Singer's stories, but they are not ethereal

(130) or ghostly; in fact, so substantial a part of the phenomenal world are they that neither the characters in the stories nor the reader can readily identify them.)

So although Singer's fictional realm is
(135) animistic and magical, it seems always to
be rooted in the material world. Critic
Irving Howe has said of Singer's stories
that they "work, or prey, upon the
nerves. They leave one unsettled and
(140) anxious, the way a rationalist might feel

if, waking at night in the woods, he suddenly found himself surrounded by a swarm of bats."

- **12.** The passage is primarily concerned with
 - (A) the metaphysical world of Singer's stories.
 - **(B)** Singer's religious beliefs.
 - (C) historical aspects of Singer's work.
 - (**D**) autobiographical elements in Singer's work.
 - **(E)** superstition in Singer's stories.
- 13. In the context of the passage, which of the following best expresses the meaning of the statement in lines 8 and 9 that, in Singer's fictional world, "There is no border between the cosmic and the mundane"?
 - (A) The seemingly dualistic elements of Singer's stories are an integral part of one another.
 - (B) In Singer's stories, both God and demons frequently descend to earth and mingle with human beings.
 - (C) Singer believes that the dead roam the earth and that sometimes we cannot tell who they are.
 - (D) In Singer's stories, the characters often wonder about the nature of God and reality.
 - (E) Singer's stories have many different kinds of settings and characters, yet they all have the same theme.

- **14.** To which of the following does the word "phenomena" (line 14) refer?
 - (A) Supernatural elements of the physical universe
 - (B) Startling or incredible aspects of seemingly ordinary things and events
 - (C) Those parts of the world that appear material and real to the senses
 - (**D**) The realm of dead people who do not know they are dead
 - (E) Obvious truths about the world at large
- **15.** What is the meaning of the word "dichotomous" in line 12?
 - (A) Subjected to endless debate
 - (B) Regarded as controversial
 - **(C)** Presented in a disjointed fashion
 - (**D**) Related to spiritual matters
 - (E) Divided into two usually contradictory classifications
- **16.** The author most likely divided the stories into three types in order to illustrate the idea that
 - (A) Singer's stories are too complex to be categorized precisely.
 - (B) in spite of the many surface differences in the three types of stories, there are important similarities.
 - (C) some of Singer's stories deal with the ordinary world of people and some with the supernatural.
 - (**D**) Singer does not write about a specific ethnic or racial group—his stories are universal.
 - (E) Singer's stories have orthodox religious underpinnings, in spite of their seemingly strange and unusual themes.

- **17.** The author of the passage uses the story "The Slaughterer" (lines 116–119) to illustrate the fact that Singer's stories often contain
 - (A) symbolic language.
 - (B) supernatural elements.
 - (C) biographical details.
 - **(D)** contrary elements.
 - (E) wanton cruelty.
- **18.** The story "Shiddah and Kuziba" (lines 99–105) demonstrates the author's idea that, in Singer's stories,
 - (A) demons are usually more sympathetic than human beings.
 - **(B)** demons often plague human characters who are searching after God.
 - (C) demons are written about in the language of folk or fairy tales.
 - (**D**) demons are understood to be metaphoric figures.
 - (E) demons are often beset by problems from the human world.
- **19.** Which of the following elements in the story "Cockadoodledoo" (lines 42–45) is exceptional among Singer's stories?
 - (A) The setting
 - **(B)** The point of view
 - (C) The historical period
 - **(D)** The structure of the story
 - **(E)** The central concern of the narrator
- **20.** The final paragraph of the passage indicates that Singer's stories are likely to leave the reader with a feeling of
 - (A) magic.
 - (B) dissatisfaction.
 - (**C**) inspiration.
 - (D) uneasiness.
 - (E) terror.

Questions 21–25 are based on the following passage.

This passage, except for many of the authorial value judgments, is based on Environmental Protection Agency documents on the environmental impact of the pesticide methyl bromide and its planned phase-out.

- Line Although many organizations—especially those connected to the agricultural industries—maintain that the benefits of methyl bromide outweigh its risks,
- (5) methyl bromide is a toxic chemical that will poison, not only the target pests it is used against, but non-target organisms as well. Because it dissipates so rapidly into the atmosphere, this pesticide is most
- (10) dangerous at the actual fumigation site, where human exposure to high concentrations is at a maximum. This exposure can result in central nervous system and respiratory system failure, as well as
- (15) specific and severe deleterious actions on the lungs, eyes, and skin. Exposure of pregnant women may result in fetal defects. Depending upon dose, gross permanent disabilities or death may
 (20) result.
 - Assessments made by atmospheric scientists, under the authority of the World Meteorological Organization along with the National Oceanic and
- (25) Atmospheric Administration and the National Aeronautics and Space Administration, indicate that methyl bromide also contributes significantly to the destruction of earth's stratospheric ozone
- (30) layer, which protects life on earth from exposure to dangerous levels of ultraviolet light, a major cause of skin cancer, cataracts, and impaired immune systems. When ozone-degrading chemicals such as
- (35) methyl bromide (whose sources include

soil fumigation, as mentioned above, as well as the exhaust of automobiles using leaded gasoline) are emitted, the chlorine and bromine they contain catalyze destruction of the ozone.

(40)

(45)

Worldwide, most of the methyl bromide used goes to fumigate soil for preplant purposes. The breakdown is 70 percent to fumigate soil, 16 and 8 percent to fumigate durable and perishable commodities, respectively, and 6 percent to treat structures. Of all the methyl bromide used, North America uses the most, at 43 percent of the total. Asia uses

(50) 24 percent and Europe 24 percent, while the remaining 9 percent is used by Africa, South America, and Australia. In the United States, growers use 43 million pounds of methyl bromide each year. Of

(55) that, about 35 million pounds go for soil fumigation, 5 million for post-harvest uses, and 3 million for structural fumigation. This means that 81 percent of the chemical used goes to prepare the (60) soil for vegetables, orchards, nurseries,

(60) soil for vegetables, orchards, nurseries, and other crops—that is, 81 percent actually affects foods we take into our bodies.

Because science has so definitely

(65) fingered methyl bromide as a culprit in
destroying the ozone, regulatory actions
are needed to control emissions. Under
the Clean Air Act, methyl bromide had
been scheduled for phase-out in the

(70) United States on January 1, 2001. In spite of its obvious hazards, however, much of the agricultural industry continues to lobby against discontinuing utilization of this pesticide, and Congress

(75) recently signed legislation to extend its use, beginning gradual phase-out by 2005.

- **21.** Which of the following best expresses the main idea of the passage?
 - (A) Although organizations and political bodies with vested interests support the use of methyl bromide, the facts show that it is too dangerous to go on using.
 - (B) Congress has been remiss in failing to push for phase-out of methyl bromide by the year 2001.
 - (C) Although methyl bromide is a dangerous chemical, it does have a number of beneficial uses.
 - (**D**) Methyl bromide is hazardous, not only to individual human beings, but to humanity as a whole, since it is depleting the ozone layer.
 - (E) In today's society, politics and money always take precedence over the well-being of human beings.
- **22.** In the context of the passage, to which of the following does the term "fumigation site" (line 10) refer?
 - (A) The address of the farm on which the pesticide is being used
 - (B) The organisms being targeted by the pesticide
 - (C) The place where the pesticide is actually added to the soil
 - (**D**) The location of the company distributing the pesticide
 - (E) The chemicals that make up the pesticide

- **23.** Readers would probably be more likely to take political action against the use of methyl bromide if the author
 - (A) included specific names of corporations and organizations that lobby for the continued use of methyl bromide.
 - (B) added a detailed discussion of the scientific designation for ozone—
 O₃—and how such designations are determined.
 - (C) mentioned the exact amount of money saved by the reduction of crop loss through the use of methyl bromide.
 - (**D**) gave the history of the passage of the Clean Air Act.
 - (E) deleted mention of the action by Congress from the final paragraph.
- **24.** What is the most likely reason the author included statistics in paragraph 3?
 - (A) To reduce the likelihood that the reader will be offended by the final paragraph with its harsh criticism of Congress
 - (B) To distract the reader from the fact that there might be fallacies in the central argument of the paper
 - (C) To add weight to the central argument by giving concrete proof that methyl bromide is hazardous to humans
 - (**D**) To make the paper and its central argument more persuasive to scientists and other academics
 - (E) To demonstrate that North America has less concern than other countries for the harm that big corporations do to its citizens

- **25.** Which of the following does the passage imply is the most important of the "non-target organisms," as the term is used in line 7?
 - (A) The bacteria and other organisms, such as worms, that are necessary to the production of food
 - **(B)** The soil itself, into which the pesticide is injected
 - (C) Livestock and other domestic animals
 - (**D**) Human beings
 - **(E)** Organisms that lie outside the range of distribution of methyl bromide

STOP

Section 2—Math

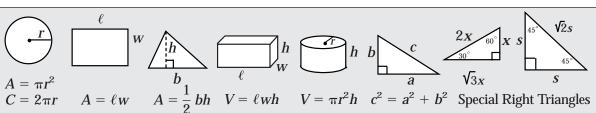
Time—25 Minutes • 20 Questions

Solve problems 1–20, then select the best of the choices given for each one and fill in the corresponding oval on the answer sheet. You may use available space on the page for scratchwork.

Notes:

- 1. You may use a calculator. All of the numbers used are real numbers.
- 2. You may use the figures that accompany the problems to help you find the solution. Unless the instructions say that a figure is not drawn to scale, assume that it has been drawn accurately. Each figure lies in a plane unless the instructions say otherwise.

eference Information



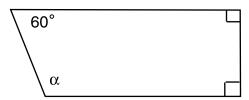
The number of degrees of arc in a circle is 360.

The measure in degrees of a straight angle is 180.

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

- 1. If $\frac{2}{3}$ of the area of a triangle equals 6 square inches, what is its area?
 - (A) 2
 - **(B)** 4
 - **(C)** 6
 - **(D)** 9
 - **(E)** 12
- **2.** If 9x + 5 = 23, what is the numerical value of 18x + 5?
 - (A) 46
 - **(B)** 41
 - **(C)** 36
 - **(D)** 32
 - (E) It cannot be determined from the given information.

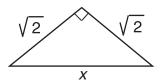
3. What is the angle measure of α in the figure below?



- (A) 90°
- **(B)** 95°
- (**C**) 100°
- **(D)** 110°
- (E) 120°

- **4.** The price of admission to a movie theater has increased 15%. If a ticket originally cost 5 dollars, what is the new price?
 - (A) \$4.25
 - **(B)** \$5.25
 - **(C)** \$5.75
 - **(D)** \$6.25
 - **(E)** \$6.75
- If $\frac{1}{3} \frac{1}{4} + \frac{1}{2} \frac{1}{6} = x$, then $\frac{1}{x} =$
 - (A) $\frac{12}{5}$
 - **(B)** $\frac{11}{5}$
 - (C) $\frac{1}{11}$
 - **(D)** $\frac{-7}{12}$
- **6.** (x + y) (x y) =
 - (A) -2y
 - **(B)** -2x
 - $(\mathbf{C}) \quad 0$
 - **(D)** 2x + 2y
 - (\mathbf{E}) 2y
- **7.** 40 percent of 50 is four times what number?
 - (A) 4
 - **(B)** 5
 - **(C)** 8
 - **(D)** 10
 - **(E)** 20

- **8.** The net price of a television set is \$306 after successive discounts of 15% and 10% off the marked price. What is the marked price?
 - (A) \$234.09
 - **(B)** \$400
 - (C) \$382.50
 - **(D)** \$408
 - (E) None of the above
- **9.** What is the value of *x* in the figure below?



- **(C)** 1
- **(D)** 2
- (E) $2\sqrt{2}$
- **10.** If $x = \sqrt{3 y}$, then what is *y* in terms of x?

 - (A) $x^2 = 3 y$ (B) $y = 3 x^2$
 - (C) $y^2 = 3 x^2$
 - **(D)** $y = 9 x^2$
 - **(E)** $y = x^2 9$
- **11.** (y + 3)(3 + y) =
 - (A) $y^2 + 6y + 9$ (B) $9 y^2$

 - (C) $y^2 + 9$
 - (\mathbf{D}) 6y

- **12.** If the area of a square is 36 square meters, what is its perimeter?
 - (A) 16 meters
 - **(B)** 18 meters
 - **(C)** 20 meters
 - **(D)** 22 meters
 - (E) 24 meters
- **13.** If $\frac{4}{5} < x < \frac{7}{8}$, which of the following could be a value for *x*?
 - (A) $\frac{6}{4}$
 - **(B)**
 - **(C)**

 - (\mathbf{E})
- **14.** A baker's helper earns 9 dollars per hour, including lunch and break time. This week, he works from 4 a.m. to noon on Monday, Tuesday, and Friday and from 5 a.m. to 11 a.m. on Wednesday and Thursday. How much money did the baker's helper earn this week?
 - (A) \$36
 - **(B)** \$216
 - (**C**) \$324
 - **(D)** \$350
 - **(E)** \$369

- **15.** A circle is inscribed in a square. If the area of the circle is 9π in², what is the area of the square?
 - (A) $3\pi \text{ in}^2$
 - **(B)** $9\pi \text{ in}^2$
 - (**C**) 36 in^2
 - (D) $(36 9\pi) \text{ in}^2$ (E) 9 in^2
- **16.** A cube with a volume of 64 cubic inches is sliced into smaller cubes, each with a side of 1 inch. What dimension is the side of the original cube?
 - (A) 4
 - **(B)** 8
 - (**C**) 16
 - **(D)** 32
 - **(E)** 64
- 17. If $\frac{k}{x} = b$ and b 3 = ay, which of the following correctly expresses *v*?
 - (A) $\frac{(ay+3)}{k}$
 - **(B)** $\frac{(ay-3)}{k}$
 - (C) $\frac{[(kx-3)(a)]}{x}$
 - $\mathbf{(D)} \quad \frac{\left(\frac{k}{x} + 3\right)}{a}$

- **18.** The length of an arc of a circle equals $\frac{1}{8}$ of the circle's circumference. What is the diameter of the circle if the length of the arc is π ?
 - (A) 2.83
 - **(B)** 4
 - (C) 6.33π
 - **(D)** 8
 - **(E)** 10
- 19. At Boulder High, $\frac{6}{10}$ of the students are old enough to drive. Of these students, $\frac{1}{3}$ drive their own cars to school each day. What percent of the students at Boulder High drive their own cars to school every day?
 - (A) 20%
 - **(B)** 25%
 - (C) 33%
 - **(D)** 50%
 - **(E)** 82%

- **20.** If $0 \le a \le 3$ and $5 \le b \le 8$, what is the least possible value of $\frac{16}{b-a}$?
 - $(\mathbf{A}) \quad 0$
 - **(B)** 2
 - **(C)** 7
 - **(D)** 8
 - **(E)** 10

STOP

Section 3—Critical Reading

Time—25 Minutes • 27 Questions

For each question below, choose the best answer from the choices given and fill in the corresponding oval on the answer sheet.

> **Directions:** Each sentence below has either one or two blanks in it and is followed by five choices. labeled (A) through (E). These choices represent words or phrases that have been left out. Choose the word or phrase that, if inserted into the sentence, would best fit the meaning of the sentence as a whole. **Example:**

Canine massage is a veterinary technique for calming dogs that are extremely .

- (A) inept
- (B) disciplined
- (C) controlled
- (**D**) stressed
- (E) restrained

\mathcal{C}	(B)	
-		-







- **1.** James Lovelock has posited the theory of Gaia, which says that the earth is a single living organism—independent and _____.
 - (A) ambivalent
 - **(B)** self-regulating
 - (C) indolent
 - (**D**) static
 - **(E)** annihilative
- **2.** With the computer program Windows, you can check for errors on your hard disk, as well as remove unnecessary files, thus ____ the performance of your computer.
 - (A) embodying
 - **(B)** adorning
 - (C) impeding
 - (**D**) optimizing
 - depreciating (\mathbf{E})

- **3.** He was a vile person who lived to ___ wickedness and deceit—he was a/an of lies.
 - (A) foment..purveyor
 - (B) betray..nullifier
 - (C) deliver..disparager
 - (**D**) thwart..embellisher
 - decry..proselytizer
- **4.** My cousin Abebi is a/an person sociable, talkative, and a friend to all.
 - (A) obnoxious
 - (**B**) unpalatable
 - (C) gregarious
 - (**D**) parsimonious
 - (E) reticent

	plus	way life really was, settle down in the sh theater seat with my popcorn, and myself in the on the screen.				
	(A)	emergedeception				
	(B)	2				
	(C)	importuneemanation				
	(D)	divulgeexudation				
	(E)	immerseillusion				
6.	the	he fall, the chilly wind circles up under eaves of the house, carrying the first of winter.				
	(A)	premonition				
		spectacle				
		meandering				
		sighting				
	(E)	sensation				
7.		en it became obvious that Ben had money from the petty cash fund, was fired.				
	(A)	opportuned				
		pilfered				
		discounted				
		required				
		desired				
8.	Because Mandisa's job was so, she had a/an of funds and was able to buy a boat and sail away to Greece.					
	(A)	lucrativesuperfluity				
		arduouspenury				
	(C)					
	(\mathbf{D})	· ·				
	(E)	immodestsurfeit				

5. At the movies, I could forget myself and

Directions: Read each of the passages carefully and answer the questions that come after them. Base your answers on what is stated or implied, as well as on any introductory material provided.

Questions 9–10 are based on the following passage.

This excerpt is from Sir Thomas More's book, Utopia (1515).

- Line There are several sorts of religions [on the island of Utopia], not only in different parts of the island, but even in every town; some worshipping the sun,
- (5) others the moon or one of the planets.
 ... Yet the greater and wiser sort of them worship none of these, but adore one eternal, invisible, infinite, and incomprehensible Deity. . . . They differ in this:
- (10) that one thinks the god whom he worships is this Supreme Being, and another thinks that his idol is that god; but they all agree in one principle, that whoever is this Supreme Being . . . is also
- (15) that great essence to whose glory and majesty all honours are ascribed by the consent of all nations.
 - **9.** The attitude toward religion on the island of Utopia can best be described as
 - (A) atheistic.
 - (B) fanatical.
 - (C) immature.
 - **(D)** primitive.
 - (**E**) tolerant.

- **10.** The tone of the passage can best be described as
 - (A) satirical.
 - (B) awed.
 - (C) dismissive.
 - **(D)** respectful.
 - (**E**) skeptical.

Questions 11–13 are based on the following passage.

The following excerpt is from an address by Senator Hillary Rodham Clinton, "New American Strategies for Security and Peace," at the Center for American Progress on October 29, 2003.

- Line Of course in a democracy, there always is tension between the information that the Executive Branch needs to keep secret and the information that must be
- (5) provided to the public to have an informed citizenry. There are no easy answers to striking the right balance. But we must always be vigilant against letting our desire to keep information confiden-
- (10) tial be used as a pretext for classifying information that is more about political embarrassment than national security.Let me be absolutely clear. This is not a propensity that is confined to one party
- (15) or the other. It is a propensity of power that we must guard against.

- **11.** The main purpose of Clinton's address is to advocate an end to
 - (A) tension between the Executive Branch and the public.
 - **(B)** secrets kept by the Executive Branch solely for political reasons.
 - (C) witholding of information by the political party to which Clinton is opposed.
 - **(D)** public insistance on the release of classified information.
 - (E) false information released by the Executive branch.
- **12.** A main implication of the passage is that, with information, comes
 - (A) power.
 - (B) wisdom.
 - (C) security.
 - (**D**) deceit.
 - (**E**) confusion.
- **13.** What is the meaning of the word "propensity," as used in the passage?
 - (A) A right
 - (**B**) An entitlement
 - (C) A decree
 - (**D**) An idea
 - (E) An inclination

Questions 14–15 are based on the following passage.

The following exerpt is from the U.S. Department of Energy archives.

- Line [In 1929, Ernest] Lawrence invented a unique circular particle accelerator, which he referred to as his "proton merry-go-round," but which became
- (5) better known as the cyclotron. The first cyclotron was a pie-shaped concoction of glass, sealing wax, and bronze. A kitchen chair and a wire-coiled clothes tree were also enlisted to make the device work.
- (10) Despite its Rube Goldberg appearance, the cyclotron proved Lawrence's point: whirling particles around to boost their energies, then casting them toward a target like stones from a slingshot is the
- (15) most efficient and effective way to smash open atomic nuclei.
- **14.** In the context of the passage, the phrase "Rube Goldberg" most likely means
 - (A) impractical.
 - (**B**) sophisticated.
 - (C) technical.
 - (**D**) ingenious.
 - (E) inconspicuous.
- **15.** The colloquial phrase "proton merry-goround" primarily serves to make the passage more accessible to readers who
 - (A) are uninterested in technolgy.
 - (**B**) lack technical expertise.
 - (C) plan to become scientists.
 - (**D**) understand complex metaphors.
 - (E) believe technology is dangerous.

Passage 1

From a short story first published in 1891, "The Yellow Wallpaper," by Charlotte Perkins Gilman.

Line It is very seldom that mere ordinary people like John and myself secure ancestral halls for the summer.

A colonial mansion, a hereditary
(5) estate, I would say a haunted house, all reach the height of romantic felicity—but that would be asking too much of fate!

Still I will proudly declare that there is something queer about it.

(10) Else, why should it be let so cheaply? And why have stood so long untenanted? John laughs at me, of course, but one expects that in marriage.

John is a physician, and PERHAPS—
(15) (I would not say it to a living soul, of course, but this is dead paper and a great relief to my mind)—PERHAPS that is one reason I do not get well faster.

You see he does not believe I am sick! (20) And what can one do?

If a physician of high standing, and one's own husband, assures friends and relatives that there is really nothing the matter with one but temporary nervous depression—a slight hysterical ten-

My brother is also a physician, and also of high standing, and he says the same thing. . . .

dency—what is one to do?

(30) [John] said we came here solely on my account, that I was to have perfect rest and all the air I could get. "Your exercise depends on your strength, my dear," said he, "and your food somewhat (35) on your appetite; but air you can absorb all the time."

So we took the nursery at the top of the house.

(25)

It is a big, airy room, the whole floor (40) nearly, with windows that look all ways, and air and sunshine galore. It was nursery first and then playroom and gymnasium, I should judge; for the windows are barred for little children, (45) and there are rings and things in the walls.

The paint and paper look as if a boys' school had used it.

It is stripped off—the paper—in great (50) patches all around the head of my bed, about as far as I can reach, and in a great place on the other side of the room low down. I never saw a worse paper in my life

(55) One of those sprawling flamboyant patterns committing every artistic sin.

It is dull enough to confuse the eye in following, pronounced enough to constantly irritate and provoke study, and when you follow the lame uncertain curves for a little distance they suddenly commit suicide—plunge off at outrageous angles, destroy themselves in unheard of contradictions.

(65) The color is repellent, almost revolting; a smoldering unclean yellow, strangely faded by the slow-turning sunlight.

It is a dull yet lurid orange in some (70) places, a sickly sulfur tint in others.

No wonder the children hated it! I should hate it myself if I had to live in this room long.

Passage 2

From a short story that first appeared in 1839, "The Fall of the House of Usher," by Edgar Allen Poe.

- Line During the whole of a dull, dark, and soundless day in the autumn of the year, when the clouds hung oppressively low in the heavens, I had been passing alone,
- (5) on horseback, through a singularly dreary tract of country; and at length found myself, as the shades of the evening drew on, within view of the melancholy House of Usher. I know not
- (10) how it was—but, with the first glimpse of the building, a sense of insufferable gloom pervaded my spirit. I say insufferable; for the feeling was unrelieved by any of that half-pleasurable, because
- (15) poetic, sentiment, with which the mind usually receives even the sternest natural images of the desolate or terrible. I looked upon the scene before me . . . with an utter depression of soul which I
- (20) can compare to no earthly sensation more properly than to the after-dream of the reveler upon opium—the bitter lapse into everyday life—the hideous dropping off of the veil. . . .
- (25) Nevertheless, in this mansion of gloom I now proposed to myself a sojourn of some weeks. Its proprietor, Roderick Usher, had been one of my boon companions in boyhood; but many
- (30) years had elapsed since our last meeting. A letter, however, had lately reached me in a distant part of the country—a letter from him—which, in its wildly importunate nature, had admitted of no other
- (35) than a personal reply. The MS gave evidence of nervous agitation. The writer spoke of acute bodily illness—of a mental disorder which oppressed him—and of

(60)

- an earnest desire to see me, as his best, (40) and indeed his only personal friend, with a view of attempting, by the cheerfulness of my society, some alleviation of his malady. . . .
- A servant in waiting took my horse,
 (45) and I entered the Gothic archway of the
 hall. A valet, of stealthy step, thence
 conducted me, in silence, through many
 dark and intricate passages in my
 progress to the studio of his master.
- (50) Much that I encountered on the way contributed, I know not how, to heighten the vague sentiments of which I have already spoken.
- **16.** Which of the following occurs as the narrator is describing the nursery room in Passage 1?
 - (A) The narrator begins to realize she really is ill.
 - **(B)** The narrator resigns herself to staying in the nursery room.
 - **(C)** The narrator grows more terrified.
 - (**D**) The narrator's impression shifts from negative to positive.
 - **(E)** The narrator's impression shifts from positive to negative.

- **17.** Which of the following can be inferred from Passage 1?
 - (A) In reality, the narrator is not mentally disturbed at all.
 - **(B)** The narrator's husband understands and wants to help her.
 - (C) The narrator's husband has seriously misjudged the severity of the narrator's illness.
 - (**D**) The house that the narrator and her husband occupy is haunted by the narrator's ancestors.
 - (E) The nursery room was previously occupied by the narrator's own children.
- **18.** What is the most likely reason the narrator says the nursery room appears "as if a boys' school had used it"?
 - (A) The nursery windows are barred.
 - **(B)** The paper on the nursery walls has been stripped off.
 - **(C)** There are rings in the nursery walls.
 - (**D**) The nursery walls are a sickly color.
 - **(E)** The nursery used to be a playroom and gymnasium.
- **19.** What can we conclude from the narrator's description of the wallpaper in lines 49–70?
 - (A) She believes it was chosen with her in mind.
 - **(B)** She has been obsessively studying it.
 - (C) She blames John for making her look at it.
 - (**D**) She has begun, in a sick sort of way, to like it.
 - (E) It reminds her of something in her past.

- **20.** To whom or what does the phrase "commit suicide" refer in line 62?
 - (A) The colors in the wallpaper
 - **(B)** The pattern of the wallpaper
 - **(C)** The previous inhabitant of the room
 - **(D)** The narrator in her own imagination
 - **(E)** The narrator's brother
- **21.** What does the narrator of Passage 2 mean by the word "insufferable" in line 11?
 - (A) Maddening
 - (B) Unrelieved
 - (C) Insupportable
 - (**D**) Immeasurable
 - (E) Revolting
- **22.** In Passage 2, to what does the phrase "the hideous dropping off of the veil" (lines 23–24) refer?
 - (A) The unwholesome aspect of the house
 - **(B)** The narrator's self-loathing
 - (C) A return to reality after a drugged
 - (**D**) Repulsive memories from the narrator's past
 - (**E**) The narrator's sudden terror
- **23.** What is the meaning of the word "sojourn" in line 27 of Passage 2?
 - (A) Temporary stay
 - (**B**) Journey
 - (C) Dalliance
 - (**D**) Expedition
 - **(E)** Appointment

- **24.** In the context of Passage 2, use of the phrase "wildly importunate" (lines 33–34) indicates that, in his letter to the narrator, Roderick Usher
 - (A) demanded that the narrator visit him.
 - **(B)** pleaded with the narrator to visit him.
 - **(C)** requested that the narrator visit him.
 - **(D)** invited the narrator to visit him.
 - **(E)** suggested that the narrator visit him.
- **25.** In the context of the passage, what is the most likely meaning of the phrase "vague sentiments" in line 52?
 - (A) The welcome that Usher gives the narrator when the narrator arrived at his study
 - **(B)** The boyhood friendship that the narrator and Usher shared
 - (C) The feeling of gloom and depression that the narrator has felt throughout the passage
 - (**D**) The cheerfulness of the narrator in contrast to Usher's gloominess
 - (E) The feeling the narrator has toward Usher's servant and valet
- **26.** A main difference between the *first sentence* of Passage 1 and that of Passage 2 is in the
 - (A) point of view (first, second, third person).
 - **(B)** sex of the narrator.
 - **(C)** age of the narrator.
 - (**D**) social class of the narrator.
 - (**E**) tone it seems to set.

- **27.** Which of the following is an important similarity between the narrators of the two passages?
 - (A) Their state of health
 - $\begin{array}{ll} \textbf{(B)} & \text{The effect that the stories' settings} \\ & \text{have on them} \end{array}$
 - (C) The effect that the seasons have on them
 - **(D)** Their marital state
 - **(E)** Their relationship with the other characters

STOP

Section 4—Math

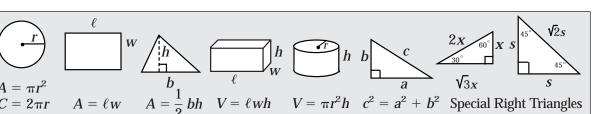
Time—25 Minutes • 20 Questions

This section is made up of two types of questions, multiple choice—10 questions, and Student-Produced Response—10 questions. You have 25 minutes to complete the section. You may use available space on the page for scratchwork.

Notes:

- 1. You may use a calculator. All of the numbers used are real numbers.
- 2. You may use the figures that accompany the problems to help you find the solution. Unless the instructions say that a figure is not drawn to scale, assume that it has been drawn accurately. Each figure lies in a plane unless the instructions say otherwise.

Reference Information

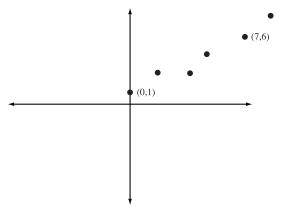


The number of degrees of arc in a circle is 360.

The measure in degrees of a straight angle is 180.

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

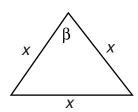
1. Which linear equation most accurately models the scatter plot diagram shown?



- (A) y = 7x + 1
- **(B)** y = 0.7x + 1
- (C) y = 0.25x + 5
- **(D)** y = 1.4x + .5
- **(E)** y = -2x + 1

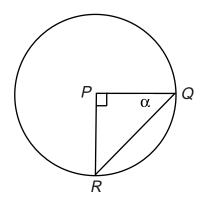
- **2.** What is the absolute value of the difference between $y^2 + 0.15$ and y^3 , given y = 3?
 - (A) -17.85
 - **(B)** 17.85
 - **(C)** 9.15
 - **(D)** -0.15
 - **(E)** 0.15
- **3.** Find the product of *x* and *y*, given $x = 2^3 + 3^2$ and $y = 3^3 + 2^2$.
 - (A) 1225
 - **(B)** 527
 - (C) 289
 - **(D)** 35
 - **(E)** 17

- **4.** Given 3c 4 < 17 which of the following is NOT a possible value of c?
 - (**A**) 7
 - **(B)** 6
 - **(C)** 0
 - (**D**) -7
 - **(E)** -17
- **5.** Find *x* when y = 1, given $\frac{x}{y} 7 = 5$.
 - (A) $\frac{1}{12}$
 - **(B)** $\frac{1}{7}$
 - **(C)** 12
 - (\mathbf{D}) 2
 - **(E)** 0
- **6.** Given $2\sqrt[3]{x} 12 = -6$, find x.
 - (**A**) 36
 - **(B)** 27
 - **(C)** 18
 - (\mathbf{D}) 9
 - **(E)** 3
- **7.** Given the following diagram with sides x, find β .



- (**A**) 15°
- **(B)** 30°
- (**C**) 60°
- **(D)** 75°
- **(E)** 90°

- **8.** A year ago, Tom and Al each deposited \$1,000 in separate investment accounts. Tom's account earns 5% every year. Al's account earns 2.5% every six months. What is the difference between Tom's and Al's accounts today?
 - (A) \$0
 - **(B)** \$0.63
 - (C) \$25.63
 - (**D**) \$25
 - **(E)** \$50
- **9.** In the figure below, *P* is the center of a circle with area 9π , points *Q* and *R* lie on the circle, and angle α is 45°. What is the length of \overline{QR} ?



- (A) $3\sqrt{2}$
- **(B)** 3
- (C) $9\sqrt{2}$
- **(D)** 9
- **(E)** 18
- **10.** Given $f(x) = \frac{(196)^{\frac{1}{2}} x}{x^{\frac{1}{3}} + 1}$, evaluate f for x = 8.
 - (A) 168
 - **(B)** 7.33
 - (**C**) 3
 - **(D)** 2
 - **(E)** 1.33

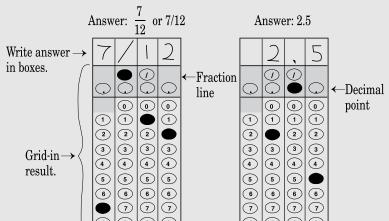
Questions 11–20 require you to solve the problems, then enter your answers by marking ovals in the special grid, as shown in the examples below.

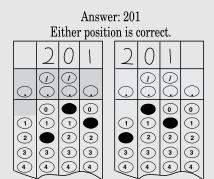
Directions for Student-Produced Response Questions

Each of the remaining 10 questions requires you to solve the problem and enter your answer by marking the ovals in the special grid, as shown in the examples below.

8

8 8





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

- Mark no more than one oval in any column.
- Because the answer sheet will be machinescored, you will receive credit only if the ovals are filled in correctly.

8 8

- 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 ovals 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 $2\frac{1}{2}$ must be gridded as 2.5 or 5/2. (If 2 | $\sqrt{2}$ is gridded, it will be

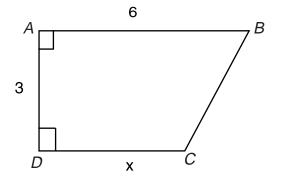
$$interpreted \ as \ \ \frac{21}{2}, not \ 2\frac{1}{2}.)$$

• Decimal Accuracy: If you obtain a decimal answer, enter the most accurate value the grid will accommodate. For example, if you obtain an answer such as 0.6666 . . . , you should record the result as .666 or .667. Less accurate values such as .66 or .67 are not acceptable.

Acceptable ways to grid $\frac{2}{3}$ = .6666 . . .

	2/	3			6	6	6		-	6	6	7
					$\bigcirc\bigcirc$	$\bigcirc\bigcirc\bigcirc$	0		•	$\bigcirc\bigcirc\bigcirc$	\bigcirc	0
1 2		0 0 1 2	>	1)	0 1 2	(a) (b) (c) (c)	0 1 2		1 2	0 1 2	(1) (2)	0 1 2
5	3 3 4 4 5 5	5			3 4 5	3 4 5	3 4 5		3 4 5	3 4 5	3 4 5	3 4 5
	6 6							١	<u>(6)</u>			6

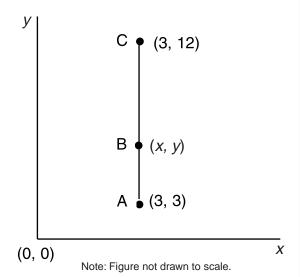
- **11.** What area remains when the area of a square with side 3 is subtracted from the area of a circle with radius 2?
- **12.** In the following diagram, find the area of the triangle formed by dropping a perpendicular line from \overline{AB} to Point C, given x = 4. Note that \overline{AB} and \overline{DC} are parallel.



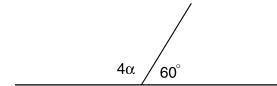
13. In the simple addition problem below, *A* and *B* are digits. What must *A* be?

$$0.AB \\ +0.BA \\ \hline 0.BB$$

14. In the figure below, if $AB = \frac{1}{2}BC$, then what is the *y*-coordinate of point *B*?



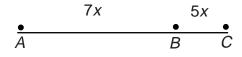
- **15.** How many of the first 100 positive integers contain the digit 7?
- **16.** In the figure below, what is the value of α ?



- 17. In order to make enough brownies to serve 1 dozen people, a recipe calls for $\frac{1}{4}$ ounce of cocoa. Using this recipe, how many ounces of cocoa would it take to make enough brownies for 36 people?
- **20.** In the following addition problems, what is the value of C B?

5	1
8	4
\boldsymbol{A}	A
B	C
+3	+3
23	19

- **18.** Let $a \nabla b$ be defined as $\frac{a!}{b!}$. What is the value of $\frac{(3 \nabla 4)}{2}$?
- **19.** Given x = .25, what is the length of \overline{AC} in the figure below?



STOP

Section 5—Writing Skills

Time—25 Minutes • 39 Questions

For each question below, select the best answer from the choices given and fill in the corresponding oval on the answer sheet.

Directions: The following questions will test your knowledge of grammar, usage, diction, and idiom.

Some sentences are correct.

No sentence contains multiple errors.

In each sentence below, five elements, labeled (A) through (E), are underlined and lettered. One (and ONLY one) of the underlined elements may contain an error. In choosing your answer, be sure to follow the rules of standard written English. You can assume that the parts of the sentences not underlined are correct.

If the sentence has no error, choose (E), "No error."

Example:

My dog Sally and my cat Buster

gets along well with each other, eating and sleeping together, playing quietly,

and sharing their food and treats.

1. That Saturday, there was an eclipse, so

could view it directly. No error.

we punch tiny holes in cardboard, so we

No error. Ε

Sample Answer:







2.	Looking	out	over	the	vast	concert ha	ll,

Roger's stomach began

to churn with anxiety, because

he knew there were talent scouts

in the audience. No error.

- 3. In accordance to the bylaws of the Condo

 A

 Association, Ralph Beekerman is

 to remove those plastic ducks

 C

 from his front yard immediately. No error.
- 4. When they were small, Winthrop and A
 Nigel Holmes dreamed of emulating
 B
 their famous Uncle Sherlock and becoming a detective. No error.

 D
 E
- 5. We were sitting in the $\underbrace{park, \, my}_{A}$ friend Kameko and $\underbrace{me, \, when}_{B}$ I $\underbrace{suddenly \, see}_{C}$ a white squirrel $\underbrace{dash \, up \, a \, juniper \, tree}_{D}$.

 No error.

 E
- won Best in Show at the Westminster, the A B American Kennel Club accused him of B forging his pedigree. No error.

 D

 Westminster, the B B of C
- Although Ernest Hemingway identified

 A
 with traditional strongmen types,

 B
 bullfighters, big game hunters, and

 C
 deep-sea fishermen, he died

 C
 alone, a suicide. No error.

 F

- 8. The price of kumquats $\frac{A}{A}$ is less than kiwi fruit, so we shall have $\frac{B}{C}$ kumquats for dessert. No error. $\frac{B}{C}$
- Wash, now containing a special hydrating A formula that will keep you looking B refreshed and vibrant, no matter C how hectic your day! No error.
 D E
- 10. The tables and chairs has been set out and $\frac{A}{A}$ are ready for the guests, so we have $\frac{B}{B}$ or thing else to do until the party begins.

 No error.

 E
- Mhen my brother and I were teenagers,

 A
 my favorite sports were

 football, baseball, and soccer,
 B
 his were craps, poker, and
 C
 he also liked pitching pennies.
 D
 No error.
- 12. If one studies Shakespeare, you will learn $\frac{A}{A}$ $\frac{B}{B}$ as much about human relationships $\frac{C}{D}$ as about poetry. No error.

- 13. Besides being an Academy Award-winning

 A
 film, Rain Man is an excellent study

 B
 of autism, starring Dustin Hoffman
 C
 D
 and Tom Cruise. No error.
 D
- $\begin{array}{c} \textbf{15.} \quad \textit{Consumer Reports}, \ \underline{\text{published by}} \ \text{an} \\ \underline{\text{independent, nonprofit}} \ \text{organization,} \ \underline{\text{was}} \\ \overline{\text{C}} \\ \text{the best guide consumers have today} \\ \underline{\text{for finding}} \ \text{quality merchandise.} \ \underline{\text{No error.}} \\ \overline{\text{E}} \\ \end{array}$
- 16. The genetic code $\frac{\text{consists of}}{A}$ the instructions present in living cells $\frac{\text{that specify}}{B}$ and control the synthesis $\frac{\text{of polypeptides}}{C}$ and proteins $\frac{\text{from amino acids.}}{D}$ No error.

- 17. Because it's Grandpa's favorite dish, we were planning to have corned beef $\frac{\text{for supper tonight, but we haven't got no }}{C}$ pot to cook it in. No error.
- 18. In the past, when <u>neurosurgeons had</u> only A low-resolution microscopes to work with, B the surgery $\frac{\text{did}}{C}$ on the human brain was more risky than it is today. No error.
- $\begin{array}{ccc} \textbf{19.} & \text{Because he was absolutely} & \underline{\frac{\text{fearless},}{A}} \\ & \text{Chucky} & \underline{\text{was}} & \underline{\text{unanimously}} & \text{voted leader to} \\ & \overline{B} & \overline{C} & \overline{D} \\ & \text{the whole gang.} & \underline{No \text{ error.}} \\ & \overline{E} \end{array}$

Directions: The sentences below test correctness and effectiveness of expression. When you choose your answers, select the sentence or sentence part that is most clear and correct and that conforms best to the requirements of standard written English.

Each of the following sentences is either underlined or contains an underlined part. Under each sentence, there are five ways of phrasing the underlined portion. Choice (A) repeats the original; the other four options are different. You can assume that the elements that are not underlined are correct.

Choose the answer that best expresses the meaning of the original sentence. If in your opinion the original sentence is the best option, choose it. Your choice should produce the most effective sentence.

Example:

I am going to the store to buy a food item, which is bread.

- (A) buy a food item, which is bread
- (B) buy a food item, bread
- (C) buy bread
- (**D**) buy a food item, which is called bread
- (E) buy what is called bread

Sample Answer:









- **20.** In point of fact, the book *Being and* Nothingness, written by author Jean-Paul Sartre in 1943, made the philosophy of Existentialism a popular one all over the world.
 - (A) In point of fact, the book *Being and* Nothingness, written by author Jean-Paul Sartre in 1943, made the philosophy of Existentialism a popular one all over the world.
 - (**B**) In point of fact, the book *Being and* Nothingness, written by author Jean-Paul Sartre in 1943, made Existentialism a popular philosophy all over the world.
 - **(C)** The book *Being and Nothingness*, written by Jean-Paul Sartre in 1943, made Existentialism popular.

- **(D)** The book *Being and Nothingness*, written by Jean-Paul Sartre in 1943, made the philosophy of Existentialism popular all over the world.
- (E) Being and Nothingness, written by Jean-Paul Sartre, made Existentialism a popular philosophy all over the world.
- **21.** While running the Boston marathon, a faint feeling suddenly came over me.
 - (A) marathon, a faint feeling suddenly came over me
 - **(B)** marathon, over me came a faint feeling suddenly
 - (C) marathon, it caused a faint feeling
 - (**D**) marathon, I suddenly felt faint
 - (E) marathon, feeling suddenly faint

- 22. Too many instructions were given to me by the Head Waiter at once, and I became confused and dropped the bowl of stew in the customer's lap.
 - (A) Too many instructions were given to me by the Head Waiter at once
 - **(B)** I was given, by the Head Waiter, too many instructions at once
 - (C) The Head Waiter gave me too many instructions at once
 - (**D**) Too many instructions, by the Head Waiter, were given to me
 - (E) Instructions were given to me by the Head Waiter, but too many at once
- 23. Albert Einstein was admired as a scientist throughout the world, but a recent biography suggests that he was unkind to his first wife.
 - (A) world, but a recent biography suggests that he was unkind to his first wife.
 - (B) world, but it is suggested by a recent biography that he was unkind to his first wife.
 - (C) world, but unkindness to his first wife is suggested by a recent biography.
 - (**D**) but was unkind to his first wife, as suggested by a recent biography.
 - (E) but, as suggested by a recent biography, unkind he was to his first wife.

- 24. Verbal phone contact could not be obtained with Mr. Schuler by me, and so I proceeded to his domicile.
 - (A) Verbal phone contact could not be obtained with Mr. Schuler by me, and so I proceeded to his domicile.
 - **(B)** I could not reach Mr. Schuler by phone, so I went to his home.
 - (C) I could not make verbal contact with Mr. Schuler by phone, so I advanced to his place of residence.
 - (D) Verbal phone contact with Mr.Schuler could not be made by me, soI proceeded to his home.
 - (E) Phone contact could not verbally be made by me with Mr. Schuler by phone, so I advanced to his domicile.
- **25.** Mr. Pritchard, our trusted bookkeeper and friend of many years, embezzled funds from the supplies account and therefore was busted.
 - (A) was busted
 - (B) was arrested
 - (C) underwent arrestment
 - (**D**) was picked up by the cops
 - (E) was detained by the local constable
- **26.** My husband, seeing as how he is an assertive person, requested that we be seated by the window, and the maitre d'complied.
 - (A) husband, seeing as how he is an assertive person
 - (B) husband, being an assertive person
 - (**C**) husband, for sure an assertive person
 - (**D**) husband, assertive to the max
 - (E) husband, a person who is constantly being assertive

- **27.** My boyfriend is <u>as handsome, maybe</u> more handsome than Tiffany's.
 - (A) as handsome, maybe more handsome than Tiffany's
 - (**B**) as handsome as, maybe more handsome than, Tiffany's
 - (C) way handsome as Tiffany's, maybe even more so
 - (**D**) as handsome over Tiffany's, maybe more handsome
 - (E) as handsome, maybe handsomer, than Tiffany's
- **28.** The Komodo dragon, a huge monitor lizard, is native to Indonesia.
 - (A) native to
 - **(B)** native by
 - (C) native for
 - (**D**) native with
 - (E) native in
- **29.** When I was a block from home, my faithful dog Arno coming to meet me, wagging his tail.
 - (A) coming to meet me
 - **(B)** comes to meet me
 - (C) is coming to meet me
 - (**D**) came to meet me
 - (E) come and met me
- **30.** If you sing as well tonight as you did this afternoon, you should win the award.
 - (A) you should win the award
 - (B) you have won the award
 - (C) you will have won the award
 - (**D**) you won the award
 - (E) you should be winning the award

- **31.** Treating antisocial patients is particularly difficult, because the therapist cannot assume the existence of a collaborative effort.
 - (A) the existence of a collaborative effort
 - **(B)** the effort that exists is a collaborative one on both sides
 - (C) that collaboration is truly the name of the game
 - (**D**) that collaboration is the dynamic that is in true existence
 - (E) that a collaborative effort is part and parcel of the whole endeavor
- **32.** Why would Uncle Wilhelm change his will when we were so attentive on him?
 - (A) attentive on him
 - **(B)** attentive to him
 - (C) attentive by him
 - (**D**) attentive for him
 - (**E**) attentive with him
- **33.** We love scary movies, perhaps because <u>it</u> gives us the opportunity to experience the thrill of danger while remaining safe.
 - (A) it gives us
 - **(B)** they give us
 - (C) we are given
 - **(D)** of their giving
 - (E) of its giving

Directions: The following passage is from an essay in its early stages. Some of it may need revision. Read the passage below and answer the questions that come after it. Some of the questions will ask you to improve sentence structure and word choice. Other questions will refer to parts of the essay or to the entire essay and ask you to improve organization and development. Base your decisions on the rules of standard written English, and mark your answer in the corresponding oval on the answer sheet.

Questions 34–39 are based on the following passage.

The following passage is an early draft of an essay about the author's mother. Some parts of the passage need to be revised.

- (1) The meals my mom prepared when I was a child would be a present-day dietitian's nightmare, although I didn't know it then. (2) When I was very small, for breakfast we'd have lumpy oatmeal with lots of sugar, or eggs fried in butter, with sausage on the side; for lunch, salami sandwiches with mayonnaise and an iceberg lettuce salad; for dinner, more iceberg (or maybe Jell-O), canned vegetables, round steak rolled in flour and fried within an inch of its life, and store-bought pie with whipped cream for dessert. (3) Other kids liked to come to our house for a sugar fix! (4) Later on, when I was a teenager and frozen provender became available my mom took to it with perfervidity. (5) She gloried in Banquet TV dinners, frozen pot pies, Sara Lee cheesecake that you just had to defrost and dig into.
- (6) Oh, I'll eat bran muffins and sprouts and soy sandwiches. (7) In the dark of night, worrying about my cholesterol, I realize they're good for me. (8) In fact, given my childhood eating habits, I'm surprised I've lived this long! (9) But before you start feeling sorry for me, thinking I must have been a neglected child, you should know that I still like that kind of food best. (10) But I still prefer Wonder Bread

- to the 6-Grain Sour Dough you buy in the health food store, and I'll still take Mrs. Smith's frozen apple pie with Cool Whip before low-fat yogurt for dessert.
- (11) So Mom wasn't Suzy Homemaker, or a fiber-gram-counter type, so what? (12) It didn't mean she was neglectful or lazy. (13) Mealtime was the only time she allowed herself to stop working and sit down. (14) Born in the early 1900s to a stoic, Calvinistic family, she grew up laboring on a farm from dawn to dusk. (15) That couldn't have been any fun—and she liked to have fun. (16) Sometimes I think she must have been a changeling, left on her somber parents' doorstep by mistake. (17) Basically she liked leisure and things of the flesh, although she rarely gave in to them.
- (18) She may not have liked to cook. (19) She did like to eat. (20) Mealtime was festive at our house. (21) We never discussed serious topics at dinner, or bickered and argued at the table like some families do. (22) We were too busy talking about how good the food was and asking for seconds!
- **34.** Sentence 9 would make more sense if it were
 - (A) placed before sentence 6.
 - **(B)** placed before sentence 7.
 - (**C**) placed before sentence 8.
 - (**D**) placed before sentence 11.
 - (E) deleted altogether.

- **35.** Which of the choices is the best revision of the underlined portion of sentence 4 below?
 - Later on, when I was a teenager and <u>frozen</u> <u>provender became available my mom took</u> to it with perfervidity.
 - (A) food that was frozen, which you simply popped into the oven, my mom was only too happy to give over cooking altogether
 - **(B)** frozen chow became available my mom took to it with a blithe spirit
 - (C) frozen foods became available my mom took to them with zeal
 - (**D**) frozen victuals became available my mom took to them with a good inclination
 - **(E)** frozen fare came along my mom became happy
- **36.** Which of the following would make the best replacement for the underlined phrase, as a transition between sentences 12 and 13?

It didn't mean she was neglectful or <u>lazy</u>. <u>Mealtime</u> was the only time she allowed herself to stop working and sit down.

- (A) lazy. Meanwhile, mealtime
- (B) lazy. On the contrary, mealtime
- (C) lazy. In addition, mealtime
- (**D**) lazy. Nevertheless, mealtime
- (E) lazy. Likewise, mealtime

- **37.** In the context of the passage, which of the following topics would most logically be addressed between sentences 15 and 16?
 - (A) A short list of chores the author's mother had to do on the farm
 - **(B)** A description of the physical appearance of the author's mother's parents
 - (C) A short list of things the author's mother liked to do to have fun
 - (**D**) An analysis of the social pressures that caused the author's mother to believe she had to work so hard
 - **(E)** A physical description of the author
- **38.** Which of the following is the smoothest and most logical way to revise and combine the underlined portions of sentences 18, 19, and 20 reproduced below?

She may not have liked to cook. She did like to eat. Mealtime was festive at our house.

- (A) cook, and she did like to eat, for mealtime
- (B) cook, but she did like to eat, so mealtime
- (C) cook, and she did like to eat, but mealtime
- (**D**) cook, and she did like to eat, and mealtime
- (E) cook, but she did like to eat, yet mealtime
- **39.** Deletion of which of the following sentences would improve the unity of the first paragraph?
 - (A) Sentence 1
 - (B) Sentence 2
 - (C) Sentence 3
 - (**D**) Sentence 4
 - **(E)** Sentence 5

STOP

Quick Score Answers

Section 1 Critical Reading	Section 2 Math	Section 3 Critical Reading	Section 4 Math	Section 5 Writing Skills
	1 D	_	1 D	1 D
1. B 2. D	1. D 2. B	1. B 2. D	1. B 2. B	1. B 2. A
3. E	3. E	3. A	3. B	3. A
4. A	4. C	3. A 4. C	4. A	3. A 4. D
5. B	5. A	5. E	5. C	5. C
6. D	6. E	6. A	6. B	6. C
7. C	7. B	7. B	7. C	7. E
8. B	8. B	8. A	8. B	8. B
9. B	9. D	9. E	9. A	9. E
10. B	10. B	10. D	10. D	10. A
11. D	11. A	11. B	11. 3.57	11. D
12. A	12. E	12. A	12. 3	12. B
13. A	13. D	13. E	13. 0	13. D
14. C	14. C	14. A	14. 6	14. E
15. E	15. C	15. B	15. 19	15. C
16. B	16. A	16. E	16. 30 °	16. E
17. D	17. E	17. C	17. .75 ounce	17. D
18. E	18. D	18. B	cocoa	18. C
19. B	19. A	19. B		19. D
20. D	20. B	20. B	18. 1	20. D
21. A		21. B	19. 3	21. D
22. C		22. C	20. 4	22. C
23. A		23. A		23. A
24. C		24. B		24. B
25. D		25. C		25. B
		26. E		26. B
		27. B		27. B
				28. A
				29. D
				30. A
				31. A
				32. B
				33. B
				34. A
				35. C
				36. B
				37. C
				38. B
				39. C

Explanatory Answers

Section 1—Critical Reading

- **1. The correct answer is (B).** The word *while* indicates that the sentence contains contrasting elements. To find the answer, you must know what the word *orthodoxy* means, and that, chances are, a person who is orthodox believes that faith is more important than reason.
- **2. The correct answer is (D).** None of the other choices indicate a *love* of car rides. In fact, you might be able to make the right choice simply by ruling out the wrong ones. But if you have a vocabulary wide enough to encompass the word *alacrity*, which means cheerful willingness or eagerness, you're ahead of the game.
- **3.** The correct answer is (E). Again, the word *while* points to a contrast, so you should look for opposites among the answers. Only choices (B) and (E) meet this requirement. Choice (B) is wrong, because a person who is *depressed* does not necessarily object to what another person wants. A person who is *contentious* frequently will.
- **4.** The correct answer is (A). The word *because*, as you know, points to a cause-and-effect element in the sentence. Reading closely, you can be pretty sure from the context—and probably from having heard the phrase used this way before—that *half the human race* means women, and that therefore *rich brain power* also refers to women. Now what is it about someone with *rich brain power* that would cause *concern*? Choice (B) can be ruled out immediately, followed by choice (D) (*audacity* might actually help a woman by making her more assertive), so choices (A), (C), and (E) are left. Now move on to the next word. Read closely again, and you'll see that choices (C) and (E) make no sense.
- **5. The correct answer is (B).** This is a definition sentence. Ask which choice most clearly indicates a willingness to *please without hope of reward*. If your vocabulary encompasses the word *altruistic*, the answer is clear.
- **6. The correct answer is (D).** The treaty does not ban most underground testing. The other choices are not reflected in the passage.
- **7. The correct answer is (C).** The treaty states that a common goal is *an end to the contamination of . . . radioactive substances* in the human environment. Choice (B) is incorrect because the treaty allows for underground tests of nuclear weapons, suggesting that the prevention of detonations is not the main purpose of the treaty. The other choices are not supported by the passage.

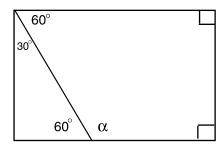
- **8.** The correct answer is (B). The FTC e-mail threatens the Web site owner with legal action for noncompliance, so it is not merely *advice*, *opinion*, or *reminder*—choices (A), (C), or (E). Choice (D) does not make sense in the context of the passage.
- **9.** The correct answer is **(B).** Choice (A) is wrong because the e-mail says only that *if* an order is issued, Web site owners *may* have to pay back money. Choice (D) is wrong because, although the e-mail says that *without . . . scientific evidence* owners must discontinue the claims, it does not order them to find it. Choices (C) and (E) are not supported by the passage.
- **10. The correct answer is (B).** The passage states that the questions became important when the arts became *available to the masses as never before* (lines 13–14). The other choices may be true but are not stated in the passage as a main reason.
- **11. The correct answer is (D).** The word *afoul* implies conflict. There is no evidence in the passage for the other choices.
- **12. The correct answer is (A).** Metaphysics deals with problems of ultimate reality and the structure of the universe. The passage talks mainly about how, in Singer's stories, the supernatural and the ordinary are inextricably fused. Choices (B), (C), and (D) are not mentioned. The supernatural is discussed, but this is not the same thing as superstition, choice (E), which is not mentioned in the passage.
- **13. The correct answer is (A).** The statement immediately follows the assertion that in Singer's stories, *dualities are . . . embedded in one another.*
- **14. The correct answer is (C).** Lines 13–14 define the term *phenomena* by saying: . . . *that plane is the world of matter, the world of phenomena.* When working on critical reading passages, be sure to look closely at the sentences immediately surrounding the designated lines. It's not an invariable rule that they will be related to the answer, but they're a good place to start.
- **15. The correct answer is (E).** Throughout the paragraph, the author discusses opposites: past and present, animate and inanimate, the supernatural and the ordinary world of the senses, even life and death (lines 2–5).

- **16. The correct answer is (B).** Immediately following the description of the three types of stories, the passage states that the stories *vary widely, yet under the surface there are striking similarities.* Choices (A) and (E) are not reflected in the passage. Choice (C) is true, but it is a narrower choice than choice (B) and thus not as good. (Remember that in these questions, you are asked to pick the *best* or *most likely* answer, rather than just a possible one.) Choice (D) is incorrect because Singer's stories, as described in the passage, are mostly about Jews.
- **17. The correct answer is (D).** Immediately preceding discussion of "The Slaughterer" in lines 116–119, the passage states that *Everywhere in* [Singer's stories], *the reader finds opposites, contraries, ambiguities.* Choices (A), (C), and (E) are not mentioned in the passage. Choice (B) is not mentioned in connection with this particular story.
- **18.** The correct answer is (E). In "Shiddah and Kuziba," the home of two demons is threatened by a drill operated by humans above them. Choices (B) and (C) are mentioned in the passage but not in particular connection with this story, so choice (E) is still the best choice. Choice (D) is contradicted in the passage—in Singer's stories, demons actually seem to occupy the physical world.
- **19. The correct answer is (B).** The passage calls the story *somewhat of an exception, since the narrator is a rooster.* Choice (D) is not mentioned. The remaining choices are shared by many of Singer's other stories.
- **20. The correct answer is (D).** The final paragraph quotes critic Irving Howe, who maintains that Singer's stories leave one *unsettled and anxious*.
- **21.** The correct answer is (A). It encompasses all the points in the passage, from the dangers of methyl bromide to the reason why it is still being used. Choices (C) and (E) are not mentioned in the passage (though they might be inferred). The other choices are too narrow to be the main idea.
- **22. The correct answer is (C).** Choices (B) and (E) do not describe a *site* (or location). Although toxicity might be high at choices (A) and (D), it makes most sense that the toxicity would be highest at the place where the pesticide is actually added to the soil.

- **23.** The correct answer is (A). Knowing the names of such corporations and organizations could fuel readers to write letters to them. Choices (B) and (D) are not so relevant as choice (A) to the dangers of methyl bromide, and choices (C) and (E) might actually make stronger the argument in favor of the pesticide.
- **24.** The correct answer is (C). Statistics are widely used tools for backing up claims. There is no evidence in the passage that the author is trying to reassure or distract the reader, choices (A) and (B), or that the author is concerned with an academic audience, choice (D). Although choice (E) is a possible inference, it is not explicitly stated and is not the main thrust of the author's overall argument.
- **25.** The correct answer is **(D)**. The term *non-target organism* is followed immediately by a discussion of the effects of exposure on the human body. Choices (A) and (C) are probably based on fact but are not mentioned in the passage. Choice (B) is incorrect, because soil is not an organism. Choice (E) makes no sense.

Section 2—Math

- **1. The correct answer is (D).** If $\frac{2}{3}$ Area = 6, then the Area = $\left(\frac{3}{2}\right)$ (6) = 9 square inches.
- **2.** The correct answer is (B). If 9x + 5 = 23, 9x = 18, or x = 2. Thus, 18x + 5 = 36 + 5 = 41.
- 3. The correct answer is (E). An easy way to solve this problem is by noticing that the angled side forms a line transecting two parallel lines. The 60° angle equals the angle supplementary to α . Therefore $60^{\circ} + \alpha = 180^{\circ}$ or $\alpha = 120^{\circ}$.



4. The correct answer is (C). To solve this one, just add 15% of the original ticket price to the original ticket price.

New Price =
$$5 + 15\%$$
 of 5
= $5 + (.15)(5)$
= $5 + .75$
= 5.75

5. The correct answer is (A). First, find the common denominator, which is 12, then combine terms, and finally invert the answer to get $\frac{1}{y}$. Remember, the question asks for $\frac{1}{y}$, NOT x!

$$x = \frac{1}{3} - \frac{1}{4} + \frac{1}{2} - \frac{1}{6}$$
$$= \frac{4}{12} - \frac{3}{12} + \frac{6}{12} - \frac{2}{12}$$
$$= \frac{5}{12}$$

Now, invert your answer:

$$\frac{1}{x} = \frac{12}{5}$$

6. The correct answer is (E).

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

7. The correct answer is (B). Translate the words into an equation and solve for *x*.

"40 percent of 50 is four times what number?" becomes:

$$(.40)(50) = 4x$$
$$20 = 4x$$
$$x = \frac{20}{4}$$
$$x = 5$$

8. The correct answer is (B). If marked price = m, first sale price = .85m and net price = .90 (.85)m = .765m.

$$.765m = 306$$
$$m = 400$$

Or work from the answer choices: 15% of \$400 = \$60, making a first sale price of \$340. 10% of this price is \$34, making the net price \$306.

9. The correct answer is (D). Did you recognize the triangle as a 45° - 45° - 90° triangle, which has sides in the ratio of 1:1: $\sqrt{2}$? You can plug the values given into this ratio.

1:1:
$$\sqrt{2}$$
 becomes $(1)(\sqrt{2}):(1)(\sqrt{2}):(\sqrt{2})(\sqrt{2})$,

which makes
$$x = (\sqrt{2})(\sqrt{2}) = 2$$
.

You can also solve this using the Pythagorean Theorem, which is $a^2 + b^2 = c^2$.

$$\sqrt{2^2} + \sqrt{2^2} = x^2$$
$$2 + 2 = x^2$$
$$4 = x^2$$
$$x = 2$$

10. The correct answer is (B). Square both sides of the equation to get

$$x^{2} = 3 - y$$

$$x^{2} - 3 = -y$$

$$y = 3 - x^{2}$$

11. The correct answer is (A). Just multiply out the factors to get the answer to this problem. Did you notice that (y + 3)(3 + y) can also be stated as $(y + 3)^2$?

$$(y + 3)(3 + y) = 3y + 9 + 3y + y^2$$

= $y^2 + 6y + 9$

- **12.** The correct answer is (E). The formula for the area of a square is $A = s^2$, so $s = \sqrt{36} = 6$. The formula for the perimeter is P = 4s, which means the perimeter of the square is P = (4)(6) = 24.
- **13. The correct answer is (D).** It could be a good idea to use your calculator here. Renaming the inequality from fractions as decimals will make comparison easier and reduce the chances of error. The inequality thus becomes .800 < x < .875. Now, you can immediately rule out the first two because choice (A), $\frac{6}{4}$, is obviously much greater than $\frac{7}{8}$, and choice (B), $\frac{2}{3}$, is much less than $\frac{4}{5}$. Here is where it pays to have memorized the most common fractional equivalents in decimals. The last three choices are best tackled with your calculator. After renaming them as decimals, it is easy to spot choice (D), $\frac{25}{30}$ or $.83\overline{3}$, as the answer.

14. The correct answer is (C). The helper's hours are:

8 hrs each day on Mon., Tues., and Fri. = (8)(3) = 24 hrs 6 hrs each day on Wed. and Thurs. = $(6)(2) = \underline{12}$ hrs Total hours worked = 36 hrs

This week the helper earned (\$9/hr)(36 hrs) = \$324

15. The correct answer is (C). We can solve this problem in two steps. First, find the radius of the circle. Since it is given that the area of the circle is 9π , we have:

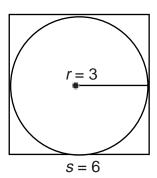
$$A=9\pi=\pi r^2$$

$$r^2 = \frac{9\pi}{\pi}$$

$$r^2 = 9$$

$$r = 3$$

Second, we must find the length of a side of the square in order to find its area. We know that the radius of a circle is $\frac{1}{2}$ of the diameter of a circle. In this case, the diameter, d, of the circle is also the length of a side, s, of the square. Thus, d=2r=(2)(3)=s=6. Now it is a simple matter to calculate the area using the formula for the area of a square:



$$A = s^{2}$$

$$= 6^{2}$$

$$= 36 \text{ in}^{2}$$

16. The correct answer is (A). The only information relevant to the solution of this problem is that the volume of the cube is 64 cubic inches. The other information is given as a logical distraction. To solve this one, just use the formula for the volume of a cube:

$$V = s^{3}$$

$$64 = s^{3}$$

$$s = \sqrt[3]{64}$$

$$s = 4$$

17. The correct answer is (E). You can get the answer to this one by first solving for *y* in the second expression; then plug the first expression into the second to get the answer.

$$ay = b - 3$$
$$y = \frac{(b - 3)}{a}$$

Now replace *b* in the expression above with $\frac{k}{x}$:

$$y = \frac{\left(\frac{k}{x} - 3\right)}{a}$$

18. The correct answer is (D). Since the length of the arc is π , and this length is $\frac{1}{8}$ of the circumference, the circumference must be 8π . Now, it is easy to find the diameter, d, using the formula for the circumference of a circle.

$$C = 2\pi r = \pi d$$

$$8\pi = \pi d$$

$$d = \frac{8\pi}{\pi}$$

$$d = 8$$

19. The correct answer is (A). You can think of this one as a problem that calculates a percentage of the percentage. To get the answer, you don't even need to know the total number of students at Boulder High, just figure out what $\frac{1}{3}$ of $\frac{6}{10}$ is, and you're all set. First, rename $\frac{6}{10}$ as .6 and $\frac{1}{3}$ as .3 $\frac{1}{3}$, then translate the words into an equation:

Percent of students who drive their cars to school = $(.3\overline{3})(.6) \approx .198$, about 20%

20. The correct answer is (B). The least value for the expression is when the denominator is the greatest. This occurs when *b* is greatest, 8, and *a* is least, 0. This means that, within the constraints of the inequality, the least possible value for the given expression is $\frac{16}{8}$, or 2.

Section 3—Reading Skills

- **1.** The correct answer is (B). Living organisms are, by definition, *independent* and *self-regulating*. Choice (A) makes little sense, seeming to apply to a person who has the power of decision-making. Choices (C) and (D) run counter to the idea of life, since both indicate a lack of vitality. Choice (E) means "destructive."
- **2.** The correct answer is (D). This is a definition sentence. Neither choice (A) nor choice (B) makes sense. Choices (C) and (E) are illogical, given the meaning of the rest of the sentence.
- **3.** The correct answer is (A). To make the right choice here, you must be able to define the words, of course, and in the case of choice (A), that demands a fairly big vocabulary. (Look the two words up now—they're the kind of words you're likely to run into on the PSAT.) In the rest of the choices, at least one word runs counter to the meaning of the original statement.
- **4. The correct answer is (C).** To be *gregarious* is to be sociable. Except for choice (E), the other choices denote unpleasant traits. Choice (E) is wrong, because to be *reticent* is to be hesitant or reserved.
- **5. The correct answer is (E).** To *immerse* oneself is to lose oneself, and a movie is an *illusion*. Look up the other words, and you'll find that one or the other of them makes no sense in the context of the sentence.
- **6. The correct answer is (A).** *In the fall,* indicates that it is not yet winter, so the best answer is *premonition*, which means forewarning.
- **7. The correct answer is (B).** Ask yourself, What kind of action, in regard to money, would get one fired? *Stealing* or *embezzling* will probably be the first words that spring to mind. Now look for a synonym of one of these words. Again, your vocabulary must be large enough to contain the word *pilfered*.
- **8.** The correct answer is (A). Look up the other words and you'll find one or the other of them runs counter to the overall meaning of the sentence.

- **9.** The correct answer is (E). Utopian citizens are said to *worship* in various ways, which rules out choice (A). The passage does not suggest that emotions run high in Utopia, ruling out choice (B). The passage speaks of the "greater and wiser" citizens of Utopia, so choices (C) and (D) are ruled out.
- **10. The correct answer is (D).** The passage expresses only positive opinions, with no evidence of insincerity, ruling out choices (A), (C), and (E). The voice never rises to the elevated level of *awe*, ruling out choice (B).
- **11. The correct answer is (B).** Choice (C) is contradicted by the passage, when Clinton says *This [withholding information] is not a propensity that is confined to one party or the other.* Choices (A), (D), and (E) are not supported by the passage.
- **12. The correct answer is (A).** Although choice (C) is mentioned in the text, Clinton says security may be used as a pretext for withholding information—not that security comes with information. Choices (B), (D), and (E) may be true, but they are not implied by the passage.
- **13. The correct answer is (E).** The other choices do not make sense in the context of the passage.
- **14.** The correct answer is (A). It would not make sense to say that the cyclotron was effective despite appearing *sophisticated, technical, or ingenious*—choices (B), (C), and (D). Choice (E) is incorrect because the device is described in a way that makes it seem outlandish in appearance, and therefore conspicuous.
- **15. The correct answer is (B).** The passage says that whirling atoms and then casting them at a target is an effective way to *smash open atomic nuclei*. The other choices are not reflected in the passage.
- **16. The correct answer is (E).** The initial description of the nursery room is that *It is a big, airy room, the whole floor nearly, with windows that look all ways, and air and sunshine galore.* The final description is that the room's color is *dull yet lurid orange in some places, a sickly sulfur tint in others.* The narrator believes she is ill from the opening of the passage, so choice (A) is wrong. During the description, she seems neither resigned, choice (B), nor terrified, choice (C).

- 17. The correct answer is (C). The narrator's tone is obsessive throughout; her inordinate fascination with the wallpaper hints at mental illness, yet, as she tells us, John does not believe she is ill. This refutes choice (A). Regarding choice (B), the narrator's husband MAY really want to help her, but the content of the passage shows that he does not understand her. Choices (D) and (E) are not in the passage.
- **18.** The correct answer is (B). The narrator says that *The paint and paper* . . . is stripped off—the paper—in great patches. This kind of destruction would require strength that only older children would have. In context, the other choices do not indicate anything about the age of the children who used to occupy the room.
- **19.** The correct answer is (B). The tone of the description and its close attention to detail seems obsessive; also, the narrator says that the pattern in the wallpaper was *pronounced enough to constantly irritate and provoke study.* None of the other choices is reflected in the passage.
- **20. The correct answer is (B).** In the previous two paragraphs, the narrator has been speaking of the wallpaper and of its *flamboyant patterns*. Immediately following, she describes how one can follow its *lame uncertain curves*. She does not speak of herself or other people in this connection, refuting choices (C), (D), and (E).
- **21. The correct answer is (B).** In lines 12–14, the narrator says, *I say insufferable; for the feeling was unrelieved.* . . . Again, a good (though not infallible) tactic in answering these questions is to first go to the lines cited, and read the words immediately surrounding them.
- **22. The correct answer is (C).** Immediately preceding the phrase, the author has said that he has a sensation like *the after-dream of the reveler upon opium—the bitter lapse into everyday life.*
- **23.** The correct answer is (A). A *sojourn* is a limited visit or temporary stay. Even if you do not know the word, the context will give you a clue.
- **24. The correct answer is (B).** The description of the letter is followed by the sentence *The MS gave evidence of nervous agitation* and suggests that Roderick needed a visit from the narrator, which logically suggests that the letter had a pleading tone.
- **25. The correct answer is (C).** Mention of the *Gothic archway of the hall*; the *valet, of stealthy step*; and *many dark and intricate passages* point to this answer. Also, all the way through the passage, the narrator has been describing the utter depression caused in him by the setting.

- **26.** The correct answer is (E). Passage 1 begins with a rather pleased tone; the opening of Passage 2 is decidedly gloomy. Choice (A) is incorrect, because both passages are told from the first-person point of view. Neither the sex, age, nor social class of the narrators is given in the first sentence, which rules out the remaining choices.
- **27. The correct answer is (B).** Both stories strongly emphasize the effect of setting on the narrator (even the titles reflect the settings). We cannot know either the state of health or the marital status of the second narrator, ruling out choices (A) and (D). We cannot know the effect of the season on the first narrator, choice (C). In Passage 1, the narrator is married to the other main character, and in Passage 2, the narrator and the other main character are just friends, ruling out choice (E).

Section 4—Math

1. The correct answer is (B). A linear equation has the form y = mx + b, where m is the slope of the line and b is the y-intercept, which is the point where the line crosses the y-axis. We can see from the diagram that the line crosses the y-axis at point (0,1), which means b is 1. Thus we can immediately eliminate choices (C) and (D). We can also see from the scatter plot that the slope is going to be positive, which eliminates choice (E). But is the slope 7 or 0.7? A line with a slope of 1 makes an angle of 45° with the x-axis. It looks like a line through these dots will make a line that is close to, or a little less than 45° . A line with a slope of 7 means it would be much steeper than 45° . It looks like choice (B) is our answer, but let's make sure; to find m, the slope of the line, use this formula:

$$m = \frac{(y_2 - y_1)}{(x_2 - x_1)}$$

We are given the coordinates for two points in the diagram, $P_1=(0,1)$ and $P_2=(7,6)$. We can use these coordinates to approximate the slope:

$$m = \frac{(6-1)}{(7-0_1)} = \frac{5}{7} \approx 0.7$$

Now we are sure, the correct answer is choice (B).

- **2.** The correct answer is **(B).** Stated algebraically, we are asked to find $|(y^2 + 0.15) y^3|$ for y = 3, or $|(3^2 + 0.15) 3^3|$. Simplifying, the expression becomes |9.15 27| or |-17.85|. Think of a number's absolute value as its distance from the origin. Thus, the point -17.85 on the number line is a distance of 17.85 away from the origin, or |-17.85| = 17.85.
- **3.** The correct answer is **(B)**. Solving for both x and y, we have $x = 2^3 + 3^2 = 8 + 9 = 17$ and $y = 3^3 + 2^2 = 27 + 4 = 31$. This means the product of x and y is $x \cdot y = 17 \cdot 31 = 527$.
- **4.** The correct answer is (A). Solving the inequality for *c* yields:

$$3c - 4 < 17$$
$$3c < 21$$
$$c < 7$$

Now it is clear that possible values of c must be **less than** 7, making choice (A) the correct answer.

5. The correct answer is (C). To decide this one, solve the equation for *x*:

$$\left(\frac{x}{y}\right) - 7 = 5$$

$$\frac{x}{y} = 5 + 7$$

$$\frac{x}{y} = 12$$

$$x = 12y$$

Substituting y = 1 into the equation, we see that x = 12.

6. The correct answer is (B). Solve this problem by isolating the unknown (x) on one side of the equation, simplifying the expression, then eliminating the radical sign to find x.

$$2\sqrt[3]{x} - 12 = -6$$

$$2\sqrt[3]{x} = -6 + 12 \qquad \text{Isolate.}$$

$$\sqrt[3]{x} = 3 \qquad \qquad \text{Simplify.}$$

$$(\sqrt[3]{x})^3 = 3^3 \qquad \qquad \text{Eliminate radical.}$$

$$x = 27$$

7. The correct answer is (C). The figure shown is an equilateral triangle. An equilateral triangle is one in which all three sides are equal in length, and all three angles are equal to 60°.

- **8. The correct answer is (B).** After one year, Tom has: \$1,000 + (.05)(1,000) = \$1,050. After one year, Al has: \$1,000 + (.025)(1,000) + (.025)(1025) = \$1,050.63. This makes the difference between two accounts: \$1,050.63 \$1,050 = \$0.63.
- **9.** The correct answer is (A). To solve this one, we must first find the radius of the circle. Knowing the area of the circle is 9π , we can find the radius using the formula for the area of a circle.

$$A = \pi r^2 = 9\pi$$
$$r^2 = 9$$

$$r = 3$$

Now, we can proceed to the solution in several different ways. One way is to use the Pythagorean Theorem, $a^2 + b^2 = c^2$.

$$3^{2} + 3^{2} = (QR)^{2}$$
$$(QR)^{2} = 9 + 9 = 18$$
$$QR = \sqrt{18} = 3\sqrt{2}$$

Or, you can solve this problem by noticing that the triangle is a 45° - 45° - 90° triangle, which is a special triangle, whose sides have the ratio 1:1: $\sqrt{2}$. For the given triangle, this ratio becomes: $3:3:3\sqrt{2}$, where:

$$QR = 3\sqrt{2}$$

10. The correct answer is (D). Converting rational exponents to their equivalent radical form and simplifying before plugging in x = 8, may help you solve this one more easily.

$$f(x) = \frac{(196)^{\frac{1}{2}} - x}{x^{\frac{1}{3}} + 1} = \frac{\sqrt{196} - x}{\sqrt[3]{x} + 1} = \frac{14 - x}{\sqrt[3]{x} + 1}$$

for
$$x = 8$$

$$f(x) = \frac{14 - 8}{\sqrt[3]{8} + 1} = \frac{6}{2 + 1} = \frac{6}{3} = 2$$

11. The correct answer is 3.57. The area of a circle with radius 2 is:

$$A_1 = \pi r^2 = 4\pi = 12.57$$
 to two decimal places.

The area of a square with side 3 is:

$$A_2 = s^2 = 3^2 = 9$$

To find the answer, the area remaining, subtract the area of the square from the area of the circle:

$$A_1 - A_2 = 12.57 - 9 = 3.57$$

12. The correct answer is 3. Substituting the values given into the formula for the area of a triangle gives us:

Area =
$$\frac{1}{2}$$
 Base • Height = $\left(\frac{1}{2}\right)$ • $(6-4)$ • $3=\frac{1}{2}$ • $6=3$

- **13. The correct answer is 0.** Any other digit could not produce this result.
- **14.** The correct answer is 6. The distance between points A and C is 12 3 = 9.

This means:
$$AB + BC = 9$$
. Since $AB = \frac{1}{2}BC$, $BC = 2AB$.

Therefore,
$$AB + 2AB = 9$$

$$3AB = 9$$

$$AB = 3$$

Finally, add 3 to the y coordinate of point A to find the y coordinate of point B=3+3=6.

- **15. The correct answer is 19.** Between 1 and 69, there are 7 integers that contain a digit that is 7. Between 70 and 79, there are 10 integers that contain a digit that is 7. Between 80 and 100, there are 2 integers that contain a digit that is 7. This makes a total of 19 integers in the given range that contain a digit that is 7.
- **16.** The correct answer is 30°. 4α and 60° are supplementary angles; therefore,

$$4\alpha + 60^{\circ} = 180^{\circ}$$

$$4\alpha = 120^{\circ}$$

$$\alpha = 30^{\circ}$$

17. The correct answer is .75 ounce cocoa. To solve this problem, first convert 36 to 3 (dozen people), then set up the following proportion:

$$\frac{.25}{1} = \frac{x}{3}$$
$$(.25)(3) = x$$
$$x = .75$$

A + B = 7

18. The correct answer is $\frac{1}{8}$.

$$3 \nabla 4 = \frac{3!}{4!} = \frac{(3 \times 2 \times 1)}{(4 \times 3 \times 2 \times 1)} = \frac{1}{4}$$
So, the value of $\frac{(3 \nabla 4)}{2} = \frac{\left(\frac{1}{4}\right)}{2} = \frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$

- **19. The correct answer is 3.** You can find the length of AC by setting up the equation: AC = AB + BC. This means that AC = 7x + 5x = 12x. Substituting .25 for x yields the solution: AC = 12x = (12)(.25) = 3
- **20.** The correct answer is 4. In the first column, A + B = 23 (5 + 8 + 3) = 7. In the second column, A + C = 19 (1 + 4 + 3) = 11. Now solve for B and C, respectively.

$$A + C = 11$$

 $B = 7 - A$
 $C = 11 - A$
Therefore, $C - B = (11 - A) - (7 - A)$
 $= 11 - A - 7 + A$
 $= 11 - 7$
 $= 4$

Section 5—Writing Skills

- **1. The correct answer is (B).** There is a shift in tense from past (*there was*) to present (*we punch*).
- **2. The correct answer is (A).** The phrase *looking out over the vast hall* is a misplaced modifier, which should modify Roger, not his stomach.
- **3. The correct answer is (A).** The phrase *In accordance to* is the wrong form of the idiom *In accordance with*.
- **4. The correct answer is (D).** Noun-number agreement is faulty in this sentence.

- **5. The correct answer is (C).** The error is a shift in tense from past (*were sitting*) to present (*suddenly see*).
- **6.** The correct answer is **(C)**. The error is one of vague pronoun reference.
- **7. The correct answer is (E).** The sentence is written in standard English, without errors.
- **8.** The correct answer is (B). The error is one of faulty comparison, and it's easy to miss. (*The price of kumquats is less than the price of kiwi fruit.*)
- **9.** The correct answer is (E). The sentence is correct as written.
- **10.** The correct answer is (A). This is a mistake in subject-verb agreement. The subject (tables and chairs) is plural; the verb (has been) is singular.
- **11. The correct answer is (D).** Type of error: ineffective lack of parallel structure. The series *football, baseball, and soccer,* choice (B), is parallel; however, the phrase *he also liked pitching pennies* is not and makes the sentence wordy. Choice (A) is a correctly written introductory element. Choice (C) is a correctly written noun and verb.
- **12. The correct answer is (B).** The error in this sentence is a shift in person from *one* to *you*.
- **13. The correct answer is (D).** The sentence order is illogical. The phrase *starring Dustin Hoffman and Tom Cruise* is a misplaced part that should modify the movie title, *Rain Man*, not the word *autism*.
- **14. The correct answer is (E).** The sentence is correctly written.
- **15. The correct answer is (C).** The sentence error is a shift in tense from past (*was*) to present (*have*).
- **16. The correct answer is (E).** The sentence is correctly written.
- **17. The correct answer is (D).** The error here is use of a double negative. The phrase should read *have no pots*.
- **18. The correct answer is (C).** In this sentence, the use of the verb *did* is ungrammatical. The phrase should read *done on the human brain*.
- **19. The correct answer is (D).** Type of error: unidiomatic use of preposition. The correct preposition here would be *of the whole gang*.

- **20. The correct answer is (D).** It is clear and contains all the necessary information. The cliché at the very beginning of the original sentence—*In point of fact*—indicates that choice (A) is not the answer, since it's trite and makes the sentence wordy. Choice (B) also contains the cliché and is wordy. Choices (C) and (E) have dropped the cliché and the wordiness, but they have also left out necessary information.
- **21. The correct answer is (D).** It is the only choice in which the modifier *While running the Boston marathon* is logically placed so that it modifies the runner.
- **22. The correct answer is (C).** The sentence as written makes ineffective use of the passive voice. An approach to this question would be to ask yourself why choice (A) sounds flat. It is because the person committing the action is not in the subject (or active) position in the sentence. The other choices are awkward and unnecessarily convoluted.
- **23. The correct answer is (A).** The sentence is fine the way it is. Approach this problem by reading the sentence quickly, "speaking" it silently. You will find it rhythmical and correct. Choices (B) and (C) make ineffective use of the passive voice. Choices (D) and (E) are awkward.
- **24. The correct answer is (B).** It is written in the active voice and is the most clear and free of jargon.
- **25.** The correct answer is **(B).** The other choices are inconsistent with the style of the rest of the sentence, being either too formal or too informal.
- **26.** The correct answer is (B). It includes a correctly written modifier, and its style is in keeping with the rest of the sentence. Choices (A), (C), and (D) represent a shift in style from formal to informal. Choice (E) is unnecessarily wordy.
- **27. The correct answer is (B).** In choice (A), the *as* is missing between *handsome* and *maybe*. Choices (C), (D), and (E) include unidiomatic expressions.
- **28. The correct answer is (A).** The other choices make unidiomatic use of a preposition.
- **29.** The correct answer is (D). Choice (A) is a fragment. Choices (B) and (C) represent shifts in tense from past to present. Choice (E) is a colloquialism that is too informal for the style of this sentence.
- **30. The correct answer is (A).** The sentence is correct as it is. The other choices represent shifts in tense.

- **31. The correct answer is (A).** Choice (B) is wordy and redundant. Choices (D) and (E) are wordy, and choice (E) contains the cliché *part and parcel*.
- **32. The correct answer is (B).** The other choices make unidiomatic use of prepositions.
- **33. The correct answer is (B).** In choices (A) and (E), the pronoun *it* is singular, whereas the noun that the pronoun refers to (*movies*) is plural. Choice (D) is wordy and somewhat convoluted.
- **34. The correct answer is (A).** Sentence 9 logically introduces the second paragraph.
- **35. The correct answer is (C).** This choice fits best with the style of the rest of the passage. Choice (A) is wordy. The other choices contain words that are either too informal (*chow, victuals*), too formal (*good inclination, fare*), or too pseudo-poetic (*blithe spirit*) to fit the language of the rest of the essay. In addition, choice (E) isn't so active or interesting a sentence as choice (C); also there's no indication that Mom wasn't happy before frozen food came along.
- **36. The correct answer is (B).** This choice indicates that the opposite of the previous statement was true.
- **37. The correct answer is (C).** This choice would most logically follow the statement . . . *and she liked to have fun*.
- **38. The correct answer is (B).** It is the only choice in which the coordinators logically fit the meaning of the sentence as a whole.
- **39. The correct answer is (C).** This sentence departs most clearly from the topic of the first paragraph.

How Is the Test Scored?

After you work through the sample tests in this book, you will probably want to know how you did.

Here is the way to estimate your scores on the sample tests.

First, find the **Raw Score**. Begin by determining how many answers you got right and how many you got wrong. To do this, use the Quick Score answers on pages 63, 37, and 358. Now fill in the blanks below, then do the computations as indicated. Do NOT count the questions you omitted.

Critical Reading Sections

Questions 1–52

Number of correct answers: ____ = C

Number of incorrect answers: $\times \frac{1}{4} = I$

Now subtract: C - I = (Critical Reading

Raw Score)

Math Sections

Questions 1-20

Number of correct answers: ____ = C

Number of incorrect answers: $\times \frac{1}{4} = I$

Now subtract: C - I = _____ (Math Raw

Score #1)

Questions 21–32

Number of correct answers: ____ = C

Number of incorrect answers: $\times \frac{1}{3} = I$

Now subtract: C - I = _____ (Math Raw

Score #2)

Questions 33-40

Number of correct answers: ____ = C (Math Raw

Score #3)

Now add:

Math Raw Score #1 _____

Math Raw Score #2 _____

Math Raw Score #3 _____

= _____ (Total Math Raw Score)

Writing Section

Questions 1-39

Number of correct answers: ____ = C

Number of incorrect answers: $\times \frac{1}{4} = I$

Now subtract: C - I =_____ (Writing Raw Score)

Now use the table below to convert your **Raw Score** into your **SCORE** on each of the three sections.

CRITICAL READING		MATH		WRITING	
RAW SCORE	SCORE	RAW SCORE	SCORE	RAW SCORE	SCORE
52	80	40	80	39	80
47	74	35	69	34	75
42	68	30	63	29	67
37	62	25	57	24	60
32	57	20	51	19	54
27	52	15	45	14	49
22	47	10	39	9	43
17	42	5	33	4	37
12	37	2	28	2	34
7	31	0	24	0	31
2	24	-1	22	-1	30
0	21	-2	20	-5	24
-1	20			-9	20

A score of approximately 50 is considered average (the actual "average" score varies each year by a few points). To estimate the score you might receive on the SAT I, add a zero to your PSAT Critical Reading and Math scores. Add a zero to your Writing score to estimate your SAT II Writing score.