

# Answer Sheet

## SECTION 1

### Critical Reading

- 1 (A) (B) (C) (D) (E)
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## SECTION 2

### Math

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

## SECTION 3

### Critical Reading

- 1 (A) (B) (C) (D) (E)
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# SECTION

# 4

## Math

- 1 (A) (B) (C) (D) (E)
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# SECTION

# 5

## Writing Skills

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# Practice Test

# 2

## 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

(A) (B) (C) ☒ (E)

- |  |   |
|--|---|
| <p>1. The professor's lectures were organized, perceptive, and _____, for which the students were deeply grateful and _____.</p> <ul style="list-style-type: none"><li>(A) insightful. .appreciative</li><li>(B) confusing. .indifferent</li><li>(C) patronizing. .insulted</li><li>(D) rewarding. .incensed</li><li>(E) redundant. .perplexed</li></ul> | <p>2. Since excellent writing is precise and clear, a good editor will see to it that a writer remains _____.</p> <ul style="list-style-type: none"><li>(A) indubitable</li><li>(B) bold</li><li>(C) impeded</li><li>(D) focused</li><li>(E) talented</li></ul> |
|--|---|

3. Effective mystery stories do not spell everything out for readers, but allow readers to \_\_\_\_\_ details using their \_\_\_\_\_.
- (A) dig up..talent  
(B) conjure up..imagination  
(C) invent..pliability  
(D) guess about..comprehension  
(E) ignore..naiveté
4. Trackers are people who are trained in reading clues along forest trails, in order to find \_\_\_\_\_ hikers.
- (A) departed  
(B) famished  
(C) wayward  
(D) missing  
(E) obstinate
5. Although they are usually thought of as simply ornamental, many varieties of flowers are \_\_\_\_\_ and even nutritious.
- (A) fragrant  
(B) noxious  
(C) carnivorous  
(D) robust  
(E) edible

**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 6–8** are based on the following passage.

*This passage is adapted from an entry in the online encyclopedia Wikipedia.*

- Line For I will consider my Cat Jeoffry.  
For he is the servant of the Living God  
duly and daily serving him.  
For at the first glance of the glory of God  
(5) in the East he worships in his way . . .  
*Christopher Smart*
- The above lines—part of the long poem “Jubilate Agno”—were written in the mid 1700s, when Christopher Smart  
(10) was confined to a mental asylum. The poem is a loving and carefully observed depiction of Jeoffry, the poet’s cat, as he goes about his daily “devotions” (washing, purring, chasing mice, etc).
- (15) Written during the so-called Age of Reason, the poem was considered by many to be the ravings of a lunatic. However, today the poem is seen as an extraordinary—and superbly organized and complex—meditation on the divine,  
(20) as revealed through the natural world.

6. The most likely reason the author of the passage includes lines from the poem, “Jubilate Agno” is to
- (A) give an example of Smart’s ability to portray the link between God and nature.
  - (B) make the passage less puzzling and incomprehensible to the reader.
  - (C) show that the author of the passage believes animals are important.
  - (D) demonstrate that, although intelligent, Smart was mentally ill.
  - (E) show the depth of Smart’s love for his cat, Jeoffry.
7. By using the term *so-called Age of Reason*, rather than simply *Age of Reason*, the author implies that the way Smart was treated was
- (A) unfortunate but necessary.
  - (B) the best judgment of the day.
  - (C) common in those days.
  - (D) not based on true reason.
  - (E) cruel and unusual punishment.
8. The word “devotions,” as used in the passage, refers to behaviors that, for Smart, resemble acts of
- (A) sacrifice.
  - (B) defiance.
  - (C) reverence.
  - (D) kindness.
  - (E) intelligence.

Questions 9–11 are based on the following passage.

*This passage was taken from an entry in the online encyclopedia Wikipedia.*

- Line *Groupthink* is a term coined by psychologist Irving Janis in 1972 to describe one process by which a group can make bad or irrational decisions. In a
- (5) groupthink situation, each member of the group attempts to conform his or her opinions to what they believe to be the consensus of the group. This results in a situation in which the group ultimately
- (10) agrees on an action which each member might normally consider to be unwise. One solution to the pitfall of groupthink is to appoint one group member to play Devil’s Advocate—that is, to counter
- (15) each of the group decisions with its opposite, without fear of reprisal.
9. In group decision-making, the role of the Devil’s Advocate is mainly to
- (A) revile the group’s decision.
  - (B) contradict the group’s decision.
  - (C) agree with the group’s decision.
  - (D) nullify the group’s decision.
  - (E) speed up the group’s decision.
10. What is the meaning of “consensus” as used in the passage (line 8)?
- (A) Manipulation
  - (B) Theory
  - (C) Commandment
  - (D) Censure
  - (E) Concurrence

11. Based on the passage, which of the following is the best example of groupthink?
- (A) A club unanimously elects a treasurer who seems honest and is someone they all like, but who shocks them later by embezzling money.
  - (B) To avoid hurt feelings, a family goes on vacation together, even though each member secretly wants to stay home; the trip is a disaster.
  - (C) Soldiers in a squadron dutifully obey their commander's order to take part in a dangerous mission, even though each is secretly terrified.
  - (D) A corporate officer intimidates employees into working overtime without extra pay, by threatening to outsource their jobs.
  - (E) A business group considers a new investment. Each member secretly examines the deal, finds it sound, and in the end the group invests.

**Questions 12–20** are based on the following passage.

*The passage is an essay by George Bernard Shaw, 1925 Nobel Prize winner, entitled “What is a Child?”*

Line An experiment. A fresh attempt to . . .  
make humanity divine. And you will  
vitiate the experiment if you make the  
slightest attempt to abort it into some  
(5) fancy figure of your own: for example,  
your notion of a good man or a womanly  
woman. If you treat it as a little wild  
beast to be tamed, or as a pet to be  
played with, or even as a means to save  
(10) you trouble and to make money for you  
(and these are our commonest ways), it  
may fight its way through in spite of you

(15) and save its soul alive; for all its instincts  
will resist you, and possibly be strength-  
ened in the resistance; but if you begin  
with its own holiest aspirations, and  
suborn them for your own purposes, then  
there is hardly any limit to the mischief  
you may do. Swear at a child, throw your  
(20) boots at it, send it flying from the room  
with a cuff or a kick; and the experience  
will be as instructive to the child as a  
difficulty with a short-tempered dog or a  
bull. Francis Place tells us that his father  
(25) always struck his children when he found  
one within his reach. The effect on the  
young Places seems to have been simply  
to make them keep out of their father's  
way, which was no doubt what he  
(30) desired, as far as he desired anything at  
all. Francis records the habit without  
bitterness, having reason to thank his  
stars that his father respected the inside  
of his head whilst cuffing the outside of  
(35) it; and this made it easy for Francis to do  
yeoman's service to his country as that  
rare and admirable thing, a Freethinker:  
the only sort of thinker, I may remark,  
whose thoughts, and consequently whose  
(40) religious convictions, command any  
respect.

Now Mr. Place, senior, would be  
described by many as a bad father; and I  
do not contend that he was a conspicu-  
(45) ously good one. But as compared with  
the conventional good father who  
deliberately imposes himself on his son as  
a god; who takes advantage of childish  
credulity and parent worship to persuade  
(50) his son that what he approves of is right  
and what he disapproves of is wrong;  
who imposes a corresponding conduct on  
the child by a system of prohibitions and  
penalties, rewards and eulogies, for  
(55) which he claims divine sanction: com-

pared to this sort of . . . monster maker, I say, Place appears almost as a Providence. Not that it is possible to live with children any more than with grown-up people without imposing rules of conduct on them. There is a point at which every person with human nerves has to say to a child “Stop that noise.” But suppose the child asks why! There are various answers in use. The simplest: “Because it irritates me,” may fail; for it may strike the child as being rather amusing to irritate you; also the child, having comparatively no nerves, may be unable to conceive your meaning vividly enough. In any case it may want to make a noise more than to spare your feelings.

You may therefore have to explain that the effect of the irritation will be that you will do something unpleasant if the noise continues. The something unpleasant may be only a look of suffering to rouse the child’s affectionate sympathy (if it has any), or it may run to forcible expulsion from the room with plenty of unnecessary violence; but the principle is the same: there are no false pretenses involved: the child learns in a straightforward way that it does not pay to be inconsiderate. Also, perhaps, that Mamma, who made the child learn the Sermon on the Mount, is not really a Christian.

- 12.** The author’s main point in the passage is that, when raising a child,
- (A) it is wise to use physical punishment, since is the only thing a child understands.
  - (B) a parent should remember that children are basically wild and need to be tamed, by physical force, if necessary.
  - (C) a parent should encourage the child’s basic nature, since that way the child may grow up to be a freethinker, which will be best for society.
  - (D) it is better to be straightforward (even physically abusive, though that is not condoned) than to be hypocritical.
  - (E) it is all right to use corporal punishment as long as it is done with love.
- 13.** What is the meaning of the word “vitate” as it is used in line 3?
- (A) Reiterate
  - (B) Encourage
  - (C) Enliven
  - (D) Spoil
  - (E) Apply
- 14.** The phrase “its own holiest aspirations” (line 16) refers to the child’s
- (A) self-love.
  - (B) love of Jesus.
  - (C) ambition in life.
  - (D) secret beliefs.
  - (E) best instincts.



15. Lines 21–24 state that, if one cuffs or kicks a child, “the experience will be as instructive to the child as a difficulty with a short-tempered dog or a bull.” In the context of the rest of the passage, this means that the child will learn
- (A) to be cautious when he or she goes out into the world.
  - (B) fear and hatred of the parent.
  - (C) a practical lesson—not to do it again.
  - (D) respect for the parent.
  - (E) to be secretive and devious around the parent
16. In context, the statement that Francis Place “[had] reason to thank his stars that his father respected the inside of his head” (lines 32–34) means that Francis felt lucky to have had a father who, although physically abusive,
- (A) did not try to influence Francis’s thinking.
  - (B) raised Francis as a freethinker.
  - (C) loved Francis deeply.
  - (D) gave Francis a good education.
  - (E) provided Francis with the basic necessities.
17. Which of the following does the author use to make his point in paragraph 2?
- (A) Objective reporting
  - (B) Comparison/contrast
  - (C) Appeal to authority
  - (D) Sober reasoning
  - (E) Bitter sarcasm
18. Which of the following devices does the author use in lines 57–58, when he says that, compared to a father who encourages the child’s natural parent-worship, “Place appears almost as a Providence”?
- (A) A concrete example
  - (B) Hyperbole (exaggeration)
  - (C) A sweeping generalization
  - (D) A cliché
  - (E) A logical syllogism
19. The last two lines of the essay imply that if a child is misbehaving and you threaten him or her in a straightforward way with unpleasant consequences (even violence), the child will learn that you
- (A) do not love him.
  - (B) are a sinner.
  - (C) are not perfect.
  - (D) know best.
  - (E) are a bad parent.
20. It can be inferred from the passage that the author views children with
- (A) distaste.
  - (B) respect.
  - (C) scorn.
  - (D) repugnance.
  - (E) indifference.



**Questions 21–25** are based on the following passage.

*The passage is an excerpt from the Department of Energy’s Annual Report of the Council on Environmental Quality (1993).*

Line Wetlands and coastal waters, two areas  
rich in natural resources, have histori-  
cally been under intense pressure from  
development, and the pressure is begin-  
(5) ning to show. Of all species currently  
listed as threatened or endangered, 54  
percent are found in wetlands and  
deepwater habitats.

Wetlands played a prominent role in  
(10) the settlement of the United States, but  
farmers and settlers, perceiving them as a  
hindrance to productive land use,  
routinely drained, filled, or otherwise  
manipulated bogs, swamps, and marshes  
(15) to produce dry land for agricultural use  
or homesites. Only recently has society  
begun to appreciate wetlands and their  
benefits, but not before half of them were  
converted to other uses.

(20) U.S. wetlands range from extensive  
coastal marshes and inland swamps in  
the Southeast to bogs and shrub swamps  
in the North, and from tropical wetland  
forests in Hawaii to permafrost wetlands  
(25) in Alaska. This diversity reflects regional  
differences in climate, hydrology, soils,  
and vegetation. In coastal areas 73  
percent of all wetlands are emergent  
herbaceous wetlands such as marsh,  
(30) whereas inland, only 25 percent are  
marsh. The remaining inland wetlands  
are forested (53 percent), shrub (16  
percent), and pond (6 percent).

Wetlands provide an array of  
(35) beneficial functions and values. This  
ecotype plays an integral part in main-  
taining the quality of human life and

wildlife as well as the vigor of the U.S.  
economy. Americans also use wetlands  
(40) for recreational activities such as  
canoeing, fishing, and bird watching.

Wetlands store large amounts of  
water in organic deposits and basins,  
(45) providing erosion and flood control, flow  
stabilization, and the recharging of  
underground aquifers. Effective flood  
control is the result of a number of  
factors including the interrelationship of  
wetlands with streamflow within a  
(50) particular watershed. Recent research  
finds that flood peaks may be reduced by  
80 percent in watersheds with a 30-  
percent wetland area and by 65 percent if  
(55) a watershed has only 15 percent of its  
area in wetlands.

. . . As water flows through a wetland  
system, plants, animals, and sediments  
absorb, assimilate, or change the  
chemical form of many contaminants,  
(60) including heavy metals, introduced into  
the watershed by human activities.  
Significant amounts of suspended  
sediments also are removed from the  
water during the seepage process, and  
(65) thus wetlands serve as natural filtration  
systems and improve the quality of the  
water.

Wetlands provide habitats for diverse  
and abundant fish, wildlife, and plant  
(70) species, many of which are found in the  
diets of humans. The ecotype produces  
large amounts of detritus which forms  
the base of a complex food web that  
cycles energy and nutrients within the  
(75) wetland environment and exports  
nutrients into adjacent areas. Half of the  
species that inhabit wetlands are re-  
stricted to this land-cover type or choose  
to frequent it.

(80) Although the rate of wetland losses has declined in recent years, conservation efforts remain essential to protect this ecotype which the nation has come to appreciate.

(85) Recognizing the need to improve federal wetlands policy, the Administration issued a comprehensive package of initiatives that included legislative recommendations and administrative actions addressing both the Clean Water Act Section 404 program and nonregulatory protection approaches. In addition an array of federal programs were underway to acquire, mitigate, protect, and restore wetlands.

(95) On August 24, 1993, the Administration announced a package of wetland reforms entitled Protecting America's Wetlands: A Fair, Flexible, and Effective Approach. The reform package was prepared by the Interagency Working Group on Federal Wetlands Policy convened in June 1993 to formulate a workable policy. Chaired by the White House Office on Environmental Policy, the group included the EPA, Army Corps of Engineers, Office of Management and Budget, and the departments of Agriculture, Commerce, Energy, Interior, Justice, and Transportation.

21. Which of the following best expresses the main point of paragraph 2?

- (A) Almost too late, society has begun appreciating its wetlands, which it previously nearly destroyed.
- (B) Wetlands have been systematically damaged throughout our history.
- (C) Wetlands were important to the settlement of the United States.
- (D) Earlier farmers and settlers did not appreciate wetlands the way present-day environmentalists do.
- (E) Wetlands have always served an important agricultural purpose.

22. As described in paragraph 6, among the services performed by wetlands in their role as *natural filtration systems* (line 65) is

- (A) adding important heavy metals for use by humans.
- (B) filtering out contaminants such as pesticides.
- (C) nourishing plants and animals.
- (D) adding rich sediments to the soil.
- (E) removing suspended sediments.

23. Paragraph 1 implies that *intense pressure from development* (lines 3–4) is

- (A) endangering many species.
- (B) causing wetlands to become more widely appreciated.
- (C) enabling humans to learn more about wetland history.
- (D) causing deepwater habitats to be drained.
- (E) enabling developers to profit from wetland use.

**24.** The statistics reported in paragraph 3 are mainly used to show that wetlands are

- (A) being systematically destroyed.
- (B) economically important to humans.
- (C) geographically diverse.
- (D) filled with natural beauty.
- (E) becoming more and more heavily populated.

**25.** The final paragraph deals mainly with wetland

- (A) products.
- (B) economics.
- (C) science.
- (D) reform.
- (E) manipulation.

**STOP**

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

## Section 2—Math

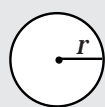
### Time—25 Minutes • 20 Questions

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.

#### Reference Information

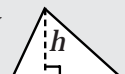


$$A = \pi r^2$$

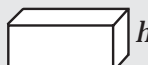
$$C = 2\pi r$$



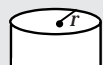
$$A = \ell w$$



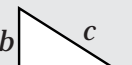
$$A = \frac{1}{2}bh$$



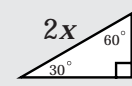
$$V = \ell wh$$



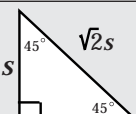
$$V = \pi r^2 h$$



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



$$\text{Special Right Triangles}$$



$$\text{Special Right Triangles}$$

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.  $4 \times (7 + 1) - 6 =$

- (A) 7
- (B) 8
- (C) 21
- (D) 23
- (E) 26

2. If angle  $\alpha$  and obtuse angle  $\beta$  are supplementary angles, which of the following statements is true?

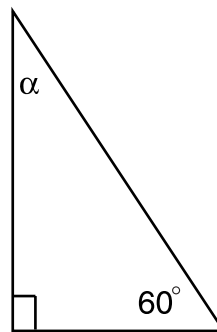
- (A)  $\alpha < \beta$
- (B)  $\alpha > \beta$
- (C)  $\alpha = \beta$
- (D)  $\alpha = 180^\circ$
- (E)  $\beta = 90^\circ$

3. If  $x + 3y = z$ , what is the value of  $y$ ?

- (A)  $3(z + x)$
- (B)  $\frac{(xz)}{3}$
- (C)  $\frac{1}{3}(z - x)$
- (D)  $\frac{(x - z)}{3}$
- (E)  $-3(z - x)$

4. What is the volume, in cubic inches, of a rectangular solid of length 8 inches and width 6 inches if its height is one half its width?
- (A) 120  
(B) 144  
(C) 168  
(D) 192  
(E) 576
5. What is the wall thickness, in inches, of a tube with an outer diameter of .750 and an inner diameter of .625?
- (A) .0625  
(B) .125  
(C) .625  
(D) .6875  
(E) .750
6. A pair of pants sells for \$6 more than 75% of its price. What is the price of the pants?
- (A) \$12  
(B) \$18  
(C) \$20  
(D) \$24  
(E) \$36

7. In the figure below, what is the value of  $\alpha$ ?



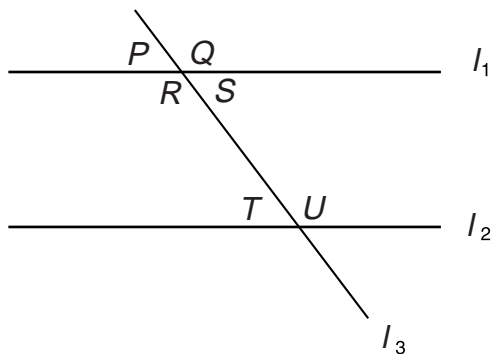
- (A)  $15^\circ$   
(B)  $20^\circ$   
(C)  $30^\circ$   
(D)  $45^\circ$   
(E)  $90^\circ$
8. What % of 5 is 90% of 50?
- (A) 2.25  
(B) 9  
(C) 10  
(D) 90  
(E) 900
9. For what values of  $a$  and  $b$  is  $(a \times b) < 0$ ?
- (A)  $a = 3, b = .0001$   
(B)  $a = -2, b = -.0001$   
(C)  $a = 7, b = 0$   
(D)  $a = -1, b = -19$   
(E)  $a = -2, b = 3$
10. How tall is a flag pole that casts a 60-foot shadow if a nearby fence post, four feet high, casts a 10-foot shadow?
- (A) 40  
(B) 36  
(C) 30  
(D) 24  
(E) 15

11. What is the value of

$$\left(9x^3 - \frac{z^2}{2}\right)\left(\frac{y}{11}\right)$$

when  $x = -1$ ,  $y = 1$ ,  $z = 2$ ?

- (A)  $\frac{25}{11}$   
 (B)  $\frac{1}{11}$   
 (C)  $\frac{-1}{11}$   
 (D)  $\frac{-7}{11}$   
 (E)  $-1$
12. In the figure below, if lines  $l_1$  and  $l_2$  are parallel, and  $l_3$  transects  $l_1$  and  $l_2$  at an acute angle, which of the following statements is FALSE? ( $P$ ,  $Q$ ,  $R$ ,  $S$ ,  $T$ , and  $U$  are angles.)



- (A)  $P = S$   
 (B)  $P = Q$   
 (C)  $T = S$   
 (D)  $T = P$   
 (E)  $R = Q$

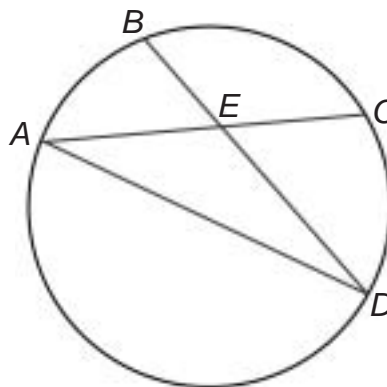
13. A woman's coin purse contains 65 cents in 11 coins, all nickels and dimes. How many coins are dimes?

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

14. What percent of two gallons is a quart?

- (A) 12.5%  
 (B) 25%  
 (C) 50%  
 (D) 67%  
 (E) 75%

15. In the figure below,  $\overline{AC}$  and  $\overline{BD}$  are chords of a circle that intersect at point  $E$ .  $\overline{AD}$  is the diameter. If the measure of arc  $AB = 40^\circ$  and  $m\angle CED = 60^\circ$ , what is the measure of  $\angle CAD$ ?



Note: Figure not drawn to scale.

- (A)  $60^\circ$   
 (B)  $45^\circ$   
 (C)  $30^\circ$   
 (D)  $40^\circ$   
 (E)  $15^\circ$

16. A shopper obtains a 30% discount on the price of a chair and pays \$420. How much was the original price of the chair?
- (A) \$126  
(B) \$450  
(C) \$577  
(D) \$600  
(E) \$1,400
17. In triangle  $ABC$ ,  $m\angle C = 2m\angle B$ ,  $m\angle A = 6m\angle B$ . What is the measure of  $\angle C$ ?
- (A)  $5^\circ$   
(B)  $15^\circ$   
(C)  $20^\circ$   
(D)  $30^\circ$   
(E)  $40^\circ$
18. If  $\frac{a}{c} \frac{b}{d}$  is defined as  $ad - cb$ , then
- $$\frac{a}{c} \frac{b}{d} + \frac{a}{c} \frac{b}{d} + 2cb =$$
- (A)  $ad - cb$   
(B)  $-2cb$   
(C) 0  
(D)  $2ad$   
(E)  $-4cb$
19. If the base of a right triangle is  $8\sqrt{2}$  and the hypotenuse is 18, what is the area of the triangle?
- (A) 14  
(B)  $14\sqrt{2}$   
(C)  $56\sqrt{2}$   
(D) 64  
(E)  $64\sqrt{2}$
20. If  $a + b = 27$  and  $3c - a = 0$ , what does  $c$  equal?
- (A)  $3a$   
(B) 27  
(C)  $27 - b$   
(D)  $9 - 3b$   
(E)  $9 - \frac{b}{3}$

**STOP**

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



## Section 3—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

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

1. Studies have shown that breathing exercises can ease \_\_\_\_\_ during dental work, even without the use of anesthesia, which is good news for patients.
  - (A) discomfiture
  - (B) discourtesy
  - (C) discomfort
  - (D) disinterest
  - (E) disjunction
2. The airline's brochure reminds passengers that, if they are injured or \_\_\_\_\_, they may request that an airline \_\_\_\_\_ meet them at the gate with a wheelchair.
  - (A) fatigued. .executive
  - (B) disabled. .escort
  - (C) mutilated. .paramedic
  - (D) disconcerted. .paragon
  - (E) damaged. .handler
3. When we \_\_\_\_\_ similar beliefs, we identify ourselves as members of the group.
  - (A) reform
  - (B) espouse
  - (C) procure
  - (D) enthrall
  - (E) remand
4. Dentists say that for effective dental \_\_\_\_\_, people should brush their teeth for 3 minutes after each meal.
  - (A) perquisites
  - (B) admonition
  - (C) hygiene
  - (D) excision
  - (E) renovation

5. Parents can use the “V-chip” to ensure that their children do not watch \_\_\_\_\_ television programs.
- (A) inappropriate  
(B) ineffable  
(C) inconsiderate  
(D) indeterminate  
(E) inexhaustible
6. To ensure patient privacy, the results of certain medical tests are kept \_\_\_\_\_ by law.
- (A) restrained  
(B) admissible  
(C) legitimate  
(D) confidential  
(E) restorative
7. For people who have allergies to dog and cat hair, the iguana, being \_\_\_\_\_, makes a/an \_\_\_\_\_ pet.
- (A) placid. .tedious  
(B) surreal. .remarkable  
(C) reptilian. .grotesque  
(D) unprecedented. .engaging  
(E) hairless. .lovely
8. Acupuncture, previously thought of as an unorthodox kind of therapy, is now gaining \_\_\_\_\_ in this country; therefore even some conservative doctors now use it in \_\_\_\_\_ traditional medical procedures.
- (A) respect. .conjunction with  
(B) animosity. .spite of  
(C) antipathy. .opposition to  
(D) esteem. .light of  
(E) disdain. .protest to

**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 Jules Verne’s Around the World in 80 Days.*

Line Was Phileas Fogg rich? Undoubtedly. But  
those who knew him best could not  
imagine how he had made his fortune,  
and Mr. Fogg was the last person to  
(5) whom to apply for the information. He  
was not lavish, nor, on the contrary,  
avaricious; for, whenever he knew that  
money was needed for a noble, useful, or  
benevolent purpose, he supplied it quietly  
(10) and sometimes anonymously. He was, in  
short, the least communicative of men.  
He talked very little, and seemed all the  
more mysterious for his taciturn manner.  
His daily habits were quite open to  
(15) observation; but whatever he did was so  
exactly the same thing that he had always  
done before, that the wits of the curious  
were fairly puzzled.

9. The main purpose of the question that opens the passage is to
- (A) inform the reader.  
(B) goad the reader.  
(C) test the reader.  
(D) intrigue the reader.  
(E) disturb the reader.

10. In the context of the passage, which is the best meaning of the word “avaricious” (line 7)?

- (A) Bitter
- (B) Cruel
- (C) Greedy
- (D) Dishonest
- (E) Ignorant

Questions 11–13 are based on the following passage.

*This excerpt is from Thomas Paine’s “The Age of Reason” (1796).*

Line I believe in one God, and no more; and I  
hope for happiness beyond this life . . .  
and I believe that religious duties consist  
in doing justice, loving mercy, and  
(5) endeavoring to make our fellow-creatures  
happy . . . [But] I do not believe in the  
creed professed by the Jewish church, by  
the Roman church, by the Greek church,  
by the Turkish church, by the Protestant  
(10) church, nor by any church that I know  
of. My own mind is my own church. All  
national institutions of churches . . .  
appear to me no other than human  
inventions set up to terrify and enslave  
(15) mankind, and monopolize power and  
profit.

11. In terms of its tone and purpose, the passage can best be described as a(n)

- (A) denunciation.
- (B) investigation.
- (C) meditation.
- (D) summary.
- (E) debate.

12. Which best represents Paine’s religious beliefs as expressed in the passage?

- (A) Because I believe in one God, I do not share the beliefs of foreign cultures.
- (B) I do not believe that any organized religion’s dogma is divinely inspired.
- (C) The best kind of church is one that believes in a single, all-powerful God.
- (D) Organized religion on a national scale can work for both good and evil.
- (E) My religious beliefs are shared by very few other men and women.

13. In the context of the passage, which word would best replace the word “inventions”?

- (A) Inconsistencies
- (B) Anomalies
- (C) Imitations
- (D) Temptations
- (E) Fabrications

Questions 14–15 are based on the following passage.

*The following excerpt is from Wally Lamb’s “Why I Write,” comments to the National Council on the Arts.*

Line To write a first-person novel is to go on a  
journey. . . to stow away in the suitcase  
of some other, imagined person’s life. . . .  
That’s how I became a woman in [my  
(5) novel,] *She’s Come Undone* and the  
embittered twin brother of a paranoid  
schizophrenic in *I Know This Much Is  
True*. . . . So I do not usually follow the  
standard rule espoused in creative writing  
(10) classes: write what you know. My  
impulse, instead, is to write about what I  
don’t know so that I can live the life of  
“the other” and move beyond the  
limitations—the benign prison—of my  
(15) own life experiences.

14. The metaphor of stowing away in a suitcase lends to the fiction-writing process an air of
- (A) refinement.
  - (B) adventure.
  - (C) fraudulence.
  - (D) sentimentality.
  - (E) solemnity.
15. The phrase “benign prison. . . of my life experiences” (line 14–15) implies that the writer feels his own life has been
- (A) sheltered.
  - (B) sterile.
  - (C) insecure.
  - (D) boring.
  - (E) depressing.

### Passage 1

*Passage 1 is comprised of excerpts from an address by Mary Robinson, United Nations High Commissioner for Human Rights, upon her acceptance of the Erasmus Prize on November 9, 1999.*

Line Hard questions are being asked about the gap between the ideals of the human rights movement and the evidence appearing before us daily that shows

(5) how far respect for human rights is from being embedded in society. In this year alone we have witnessed gross human rights violations in Kosovo, East Timor, Sierra Leone and the Great Lakes region,

(10) to mention only some of the worst instances. The placing of human rights centre stage in political life must produce tangible improvements if there is not to be an erosion of credibility and a rise in

(15) cynicism. . . .

As far as the individual’s responsibilities are concerned, champions of human

(20) rights have recognized that, just as we possess rights simply by virtue of being human, so also we have responsibilities to those around us. There is an understandable hesitation to place too much emphasis on responsibilities and duties because unscrupulous regimes have been

(25) known to argue that duties to the State are more important than the rights of the individual. The drafters of the Universal Declaration considered listing parallel responsibilities or duties to match the

(30) rights they proclaimed, but they realized that this might qualify or relativise fundamental rights. So the issue of duties was encapsulated in one article, Article 29. . . .

(35) The onus on governments to discharge their responsibilities is clear. Governments may have ceded some of their powers to market forces over which they have little control but they retain far-reaching powers over citizens. The

(40) human rights message to governments is: you should rule wisely and respect the rights of the ruled because these rights are not yours to give or take.

(45) There are three strategies which I would like to emphasize as having a particular role in strengthening the culture of human rights.

(50) The first is Prevention. Prevention of human rights violations must become a greater priority than it is at present. Prevention is a normal part of our lives in so many ways but where conflicts are concerned it tends to be honored on

(55) paper but not in practice. We should be alive to the huge advantages of heading off human rights violations before they happen and apply the sophisticated preventive habits we know so well at

(60) home to the field of conflict prevention.

The second area is Accountability. Accountability is really a form of prevention since it signals that those who commit gross violations of human rights will not get away with it. There are encouraging signs that national judicial authorities are taking the position that grave human rights violations must be accounted for, wherever, whenever and by whomever they were committed. And a major advance has been made with the adoption of the Rome Statute of the International Criminal Court. In that context I would like to pay tribute to the impressive contribution made over the years by the Netherlands to the development of an effective international criminal justice system.

The third strategy I would support is greater emphasis on economic, social and cultural rights. This set of rights gets less attention than the better known civil and political rights but I am convinced that an enduring culture of human rights cannot take root where access to food, to education and even to basic healthcare is denied.

Let me conclude by quoting from Aung San Suu Kyi\*, who lives the values she advocates: "At the root of human responsibility is the concept of perfection, the urge to achieve it, the intelligence to find a path towards it, and the will to follow that path if not to the end at least the distance needed to rise above individual limitations and environmental impediments. . . . Concepts such as truth,

\* Human rights activist, leader of the prodemocracy movement in Myanmar (formerly called Burma), and winner of the 1991 Nobel Peace Prize, who, in July 1989, was placed under house arrest by the ruling junta for allegedly "endangering the state."

justice and compassion cannot be dismissed as trite when these are often the only bulwarks which stand against ruthless power."

## Passage 2

*Excerpts from the Universal Declaration of Human Rights, adopted by the United Nations on December 10, 1948.*

Line Now, THE GENERAL ASSEMBLY proclaims THIS UNIVERSAL DECLARATION OF HUMAN RIGHTS as a common standard of achievement for all peoples and all nations. . . .

Article 1. All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

Article 2. Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty.

Article 3. Everyone has the right to life, liberty and security of person.

Article 4. No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

Article 5. No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.



(35) Article 6. Everyone has the right to recognition everywhere as a person before the law.

(40) Article 7. All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination.

(45) Article 8. Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the constitution or by law.

(50) Article 9. No one shall be subjected to arbitrary arrest, detention or exile.

(55) Article 10. Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him. . . .

(60) Article 16. (1) Men and women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family. They are entitled to equal rights as to marriage, during marriage, and at its dissolution. (2) Marriage shall be entered into only with the free and full consent of the intending spouses. (3) The family is the natural and fundamental group unit of society and is entitled to protection by society and the State. . . .

(70) Article 18. Everyone has the right to freedom of thought, conscience, and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship, and observance. . . .

(80) Article 29. (1) Everyone has duties to the community in which alone the free and full development of his personality is possible. (2) In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society. (3) These rights and freedoms may in no case be exercised contrary to the purposes and principles of the United Nations.

16. What device does the author of Passage 1 use for strengthening her argument in the first paragraph?

- (A) Irony
- (B) Sharp definitions of terms
- (C) Real-world examples
- (D) Appeal to authority
- (E) Statistical data

17. The second paragraph of Passage 1 maintains that the framers of the Declaration decided that, if the responsibilities of citizens were stressed too much in the Declaration,

- (A) corrupt governments might use this as an excuse to oppress their citizens even more.
- (B) citizens of some countries might reject the Declaration.
- (C) corrupt governments might resent being told what their citizens' responsibilities are.
- (D) the Declaration might not pass the General Assembly of the United Nations.
- (E) citizens would be unfairly burdened by having to act more responsibly.

18. What is the meaning of the word “ceded” in the context of the third paragraph (line 37) of Passage 1?
- (A) Perpetuated
  - (B) Relinquished
  - (C) Prioritized
  - (D) Betrayed
  - (E) Mandated
19. Paragraph 6 of Passage 1 endorses human rights laws that are
- (A) clearly written.
  - (B) fair to both government and citizens.
  - (C) enforceable.
  - (D) taken out of national hands and put into international hands.
  - (E) open-ended.
20. A particular example of the rights that the author feels are NOT emphasized enough would be the right to
- (A) free elections.
  - (B) vote.
  - (C) learn to read.
  - (D) hold office.
  - (E) criticize the government in power.
21. Aung San Suu Kyi, quoted in the final paragraph of Passage 1, is from
- (A) Kosovo.
  - (B) China.
  - (C) Myanmar.
  - (D) the United States.
  - (E) The information is not available in the passage.
22. The Universal Declaration of Human Rights assumes that basic human rights belong to
- (A) all citizens of free countries.
  - (B) all people everywhere.
  - (C) all governments that treat their citizens fairly.
  - (D) everyone who has a conscience.
  - (E) everyone who exercises his or her civil and political responsibilities.
23. In the context of Article 2 of the Declaration, what is the specific meaning of the phrase “without distinction of any kind”?
- (A) All citizens of a country should voice their political opinions.
  - (B) The upper classes shall have a responsibility to take care of the lower classes.
  - (C) In regard to the granting of equal human rights, there shall be no discrimination of any kind.
  - (D) All citizens of a country should engage in responsible behavior.
  - (E) No citizen should be regarded as more distinguished than any other.
24. Articles 8 and 10 of the Declaration deal mainly with
- (A) deportation or exile of citizens.
  - (B) criminal acts by citizens.
  - (C) family law.
  - (D) the legal rights of citizens.
  - (E) the financial rights of citizens.



- 25.** Article 16 of the Declaration specifically grants to each man and woman
- (A) equal human rights, even if he or she is divorced.
  - (B) the right to marry regardless of age.
  - (C) the right to marry only within one's religion.
  - (D) equal rights if he or she is a responsible citizen.
  - (E) the right to be protected by his or her family.
- 26.** The passages are alike in regarding human rights as rights that are, first and foremost,
- (A) earned.
  - (B) purchased.
  - (C) innate.
  - (D) relinquishable.
  - (E) obscure.

- 27.** Article 16 in Passage 2 relates directly what the author of Passage 1 says in her "three strategies" paragraphs (lines 45–87)—that is,
- (A) prevention.
  - (B) accountability.
  - (C) economic rights.
  - (D) social and cultural rights.
  - (E) citizen responsibilities.

**STOP**

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

## Section 4—Math

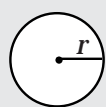
### Time—25 Minutes • 20 Questions

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



$$A = \pi r^2$$

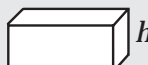
$$C = 2\pi r$$



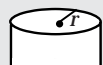
$$A = \ell w$$



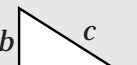
$$A = \frac{1}{2}bh$$



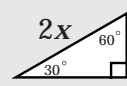
$$V = \ell wh$$



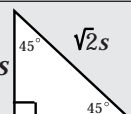
$$V = \pi r^2 h$$



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



$$\text{Special Right Triangles}$$



$$\text{Special Right Triangles}$$

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.

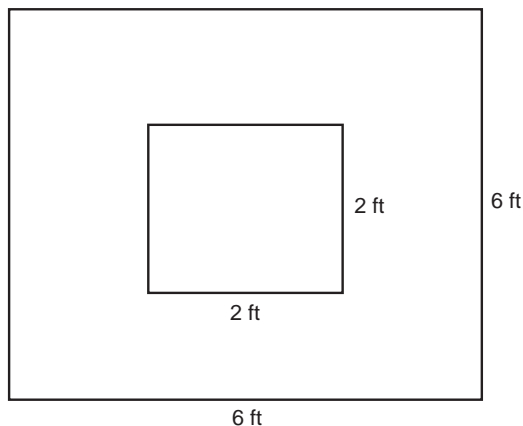
1. Simplify  $4^{\frac{3}{2}} + 64^{-\frac{1}{3}}$

- (A)  $\frac{1}{16}$   
 (B)  $\frac{1}{8}$   
 (C)  $\frac{1}{4}$   
 (D)  $\frac{3}{8}$   
 (E)  $\frac{1}{2}$

2. Given  $4x + 3y = 12 + 3y$ , find  $x$ .

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

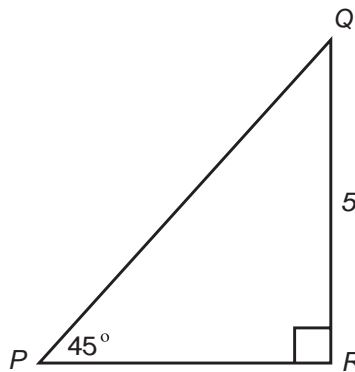
3. Suppose a dart is thrown at the target below in such a way that it is as likely to hit one point as another. What is the probability that the dart will land in the inner square?



Note: Figure not drawn to scale.

- (A)  $\frac{1}{18}$   
(B)  $\frac{1}{9}$   
(C)  $\frac{1}{3}$   
(D)  $\frac{1}{2}$   
(E)  $\frac{1}{1}$

4. Given the following diagram, find the length of  $\overline{PR}$ .



Note: Figure not drawn to scale.

- (A) 5  
(B) 4  
(C) 3  
(D) 8  
(E) 10
5. For  $x = 6$ , find  $(x^2)^{\frac{1}{2}}$ .
- (A) 6  
(B) 3.460  
(C) 2.048  
(D) 1.570  
(E) 48
6. Given  $2y + 4x = 24$ , find  $x$  when  $y = 2$ .
- (A) 12  
(B) 7  
(C) 6  
(D) 5  
(E) 4

7. Given the following diagram, find  $\alpha$ .



- (A)  $150^\circ$   
(B)  $120^\circ$   
(C)  $90^\circ$   
(D)  $60^\circ$   
(E)  $30^\circ$
8. Find the reciprocal of 0.04.
- (A) 25.00  
(B) 2.50  
(C) 16.00  
(D) 0.25  
(E) 250.00
9. A car-rental agency will rent you a car for \$220 per week plus 40 cents per mile. You have budgeted \$400 to spend on car rental. How many miles can you drive without exceeding your budget?
- (A) 72  
(B) 88  
(C) 100  
(D) 450  
(E) 550
10. If it takes one hour to hike one-third of a three-mile trail, how long does it take to hike one mile?
- (A) 20 minutes  
(B) 60 minutes  
(C) 40 minutes  
(D) 200 minutes  
(E) 180 minutes

**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.

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

Write answer →

7	/	1	2
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

Grid-in → result.

Answer: 2.5

	2	.	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

← Fraction line

← Decimal point

Answer: 201

Either position is correct.

	2	0	1
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4

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

- Mark no more than one oval in any column.
- Because the answer sheet will be machine-scored, **you will receive credit only if the ovals are filled in correctly.**
- Although not required, it is suggested that you write your answer in the boxes at the top of the columns to help you fill in the 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	1	/	2
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6

 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  $\frac{2}{3} = .6666 \dots$

	2	/	3
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6

.	6	6	6
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6

.	6	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6

11. Given  $\frac{2}{10} + \frac{2}{5} + \frac{2}{4} + 8 = x$ , find  $x^2$ .

---

12. Given  $x = \sqrt{\frac{1}{64}} + \sqrt{\frac{1}{25}}$ , find  $x$  to 3 decimal places.

---

13. 9 is 15% of what number?

---

14. The base of a 20-foot ladder is placed nine feet away from a wall. If the ladder is leaned against the wall, how high up the wall will the ladder reach?

---

15. What decimal does  $\frac{\frac{3}{5} - \frac{1}{10}}{\frac{1}{3} + \frac{1}{2} - \frac{1}{6}}$  equal?

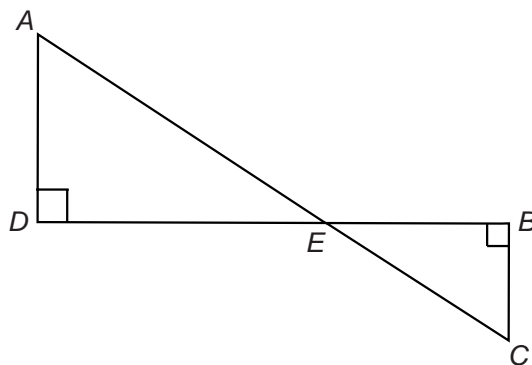
16. If a truck can carry a maximum of 1,000 lbs, how many full 60-lb bags of concrete mix can it carry without exceeding 1,000 lbs?

---

17. If I can travel at a rate of 25 miles in 20 minutes, how many hours will it take me to go 225 miles?

---

18. In the following figure  $\overline{AC}$  and  $\overline{DB}$  are straight lines,  $EB = 16$ ,  $DE = 24$ ,  $BC = 10$ . What is the length of  $AD$ ?



19. What is the difference of  $\frac{0.64}{8} - \frac{0.36}{6}$ ?

20. A bucket of soil weighs between 12 and 16 pounds. Excluding the container's weight, what is the maximum number of buckets it will take to fill a container to a weight of 240 pounds?

**STOP**

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



## Section 5—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  
A B  
and sleeping together, playing quietly,  
C  
and sharing their food and treats.  
D  
No error.  
E

**Sample Answer:**

☒ (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E)

1. The Women’s Health Initiative is an attempt  
by the National Institutes of Health to  
A  
correct errors in medical research that  
B  
results from medications not being tested  
C D  
on women. No error.  
E

2. King Arthur was a fine, disciplined horse, until he got fed up one day, kicks  
A B C  
down the barn door, and attacked  
Bossy, the neighbor’s cow. No error.  
D E
3. I was very frightened, because the  
A  
watchdogs stood in a row and won’t  
B C  
allow me to enter. No error.  
D E

4. One might feel that a health-club member-  
ship would motivate one to work out  
regularly and get in shape, but you would  
be sadly mistaken. No error.
5. What does either Sam or Josh know about  
disease, hunger, or being poor? No error.
6. Although it is said that democracy means  
“majority rules,” in this country only a  
minority of eligible voters participate with  
most elections. No error.
7. My Great Aunt Ida advises that,  
when learning to ski, a slope appropriate  
to one’s level of skill is vital important,  
and I have learned the hard way that she  
is right! No error.
8. There are war photograph images that  
we will never forget, because they are  
forever seared onto our collective mind’s  
eye. No error.
9. When Roger Baldwin recruited  
lawyers to defend draft resisters during  
the first world war, he  
brought the ACLU into being. No error.
10. Alice’s dogs, Zelda and Max,  
do not get fed until 6:00 p.m., but  
they’re frequently whining and begging  
by 4:30. No error.
11. When arresting loiterers and vagrants,  
the constitutional right to freedom of  
assembly must be kept in mind by police.  
No error.
12. The teachers, like the students, was sick of  
the strict dress code, even though  
they knew it was necessary. No error.
13. John will not bake a pie  
for Thanksgiving dinner, because  
he was mad at Aunt Bette for saying his  
last pie tasted like socks. No error.

14. My dog Taz, a remarkable canine, entered  
the terrorist's home and immediately sniffs  
out the explosive device. No error.

15. My boyfriend Bill often orders pizza  
for hissself and me, even though I tell him  
repeatedly that pizza will clog our arteries.  
No error.

16. Carlos was astonished to realize that,  
during the marathon, he had drank six  
gallons of water. No error.

17. The company president, along with  
several other executive officers,  
has recently received a  
well-deserved bonus. No error.

18. He pitches the stolen loot into the trunk of  
his car, covered it with a tarp, and speeds  
away. No error.

19. Although many fans of country music and  
rock-and-roll would disagree, most  
musicologists assert that jazz is  
the only truly American music form.  
No error.

**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.

**Sample Answer:**

(A) (B) ☒ (D) (E)

- (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

20. The sting went off without a hitch, except for a brief moment of hesitation on the part of the victim.

- (A) The sting went off without a hitch, except for a brief moment of hesitation on the part of the victim.
- (B) The sting went off without a hitch. Except for a brief moment of hesitation on the part of the victim.
- (C) The sting went off. Without a hitch, except for a brief moment of hesitation on the part of the victim.
- (D) The sting, went off without a hitch, except for a brief moment of hesitation on the part of the victim.
- (E) The sting went off without a hitch except, for a brief moment of hesitation on the part of the victim.

21. They finished their supper, retired to the living room, and fall asleep.

- (A) fall asleep
- (B) falls asleep
- (C) fell asleep
- (D) falling asleep
- (E) falled asleep

**22.** His apartment had been illegally searched, the defendant was convicted.

- (A) His apartment had been illegally searched, the defendant was convicted.
- (B) Although his apartment had been illegally searched, the defendant was convicted.
- (C) Although his apartment has been illegally searched. The defendant was convicted.
- (D) His apartment had been illegally searched the defendant was convicted.
- (E) Although his apartment, had been improperly gathered, the defendant was convicted.

**23.** Mr. Arness felt it was time to remarry, but he could not decide whom to ask.

- (A) Mr. Arness felt it was time to remarry, but he could not decide whom to ask.
- (B) Mr. Arness felt it was time to remarry, he could not decide whom to ask.
- (C) Mr. Arness felt it was time to remarry he could not decide whom to ask.
- (D) Mr. Arness felt it was time. To remarry, but he could not decide whom to ask.
- (E) Mr. Arness felt it was time to remarry he could not decide, whom to ask.

**24.** John did not think his wife capable to be unfaithful.

- (A) think his wife capable to be unfaithful
- (B) think his wife capable of being unfaithful
- (C) think his wife capable for being unfaithful
- (D) think his wife capable as being unfaithful
- (E) think his wife capable by being unfaithful

**25.** Jody's boss ordered him to quit goofing off and return to his desk with an exasperated sigh.

- (A) Jody's boss ordered him to quit goofing off and return to his desk with an exasperated sigh.
- (B) Jody's boss ordered him to quit goofing off, with an exasperated sigh, and return to his desk.
- (C) Jody's boss ordered him with an exasperated sigh. To quit goofing off and return to his desk.
- (D) With an exasperated sigh, Jody's boss ordered him to quit goofing off and return to his desk.
- (E) Jody's boss ordered him to, with an exasperated sigh, quit goofing off and return to his desk.

**26.** Sergeant Pepper was the most prettiest horse we ever had, yet he was also the meanest.

- (A) was the most prettiest horse we ever had, yet he was also the meanest
- (B) was the prettiest horse we ever had, yet he was also the meanest
- (C) was the prettiest horse we ever had, yet he was also the most meanly
- (D) was the pretty horse we ever had, yet he was also the most mean
- (E) was the prettiest horse we ever had, yet he was also the most meaner

**27.** Raisa thought they should order anchovies on their pizza; moreover, Kyle disagreed.

- (A) they should order anchovies on their pizza; moreover, Kyle disagreed.
- (B) they should order anchovies on their pizza; meanwhile, Kyle disagreed.
- (C) they should order anchovies on their pizza; however, Kyle disagreed.
- (D) they should order anchovies on their pizza; furthermore, Kyle disagreed.
- (E) they should order pizza, where Kyle disagreed.

**28.** Because the Academy Awards are based on and around the calendar year, many movie studios speed things up, rushing to release their movies at the end of the year, in December.

- (A) are based on and around the calendar year, many movie studios speed things up, rushing to release their movies at the end of the year, in December.
- (B) are based on the calendar year, many movie studios rush to release their movies in December.
- (C) are based on the calendar year, many film and movie studios hurry things along, rushing to release their movies in December.
- (D) have their basis on and around the calendar year, many movie studios rush to release their movies in December.
- (E) are based on the 12 months of the calendar year, many movie studios rush to release their movies in December.

**29.** Ruben wrote a letter to his little brother once a week while he was in Spain.

- (A) Ruben wrote a letter to his little brother once a week while he was in Spain.
- (B) When his little brother was in Spain, Ruben wrote a letter to him once a week.
- (C) When in Spain, a letter was written every day by Ruben to his little brother.
- (D) His little brother received a letter from Ruben once a week while he was in Spain.
- (E) Once a week while he was in Spain, a letter was written to his little brother by Ruben.

**30.** We have several errands to run before we can go to the movie: go to the bank, washing the car, and drop the dog off at the vet.

- (A) We have several errands to run before we can go to the movie: go to the bank, washing the car, and drop the dog off at the vet.
- (B) We have several errands to run before we can go to the movie: go to the bank, washing the car, and dropping the dog off at the vet.
- (C) Several errands have to be run before we can go to the movie: went to the bank, washed the car, and dropped the dog off at the vet.
- (D) Several errands have to be run before we went to the movie: go to the bank, wash the car, and drop the dog off at the vet.
- (E) We have several errands to run before we can go to the movie: go to the bank, wash the car, and drop the dog off at the vet.

**31.** To prevent suffocating, keep plastic bags out of the reach of children.

- (A) To prevent suffocating, keep plastic bags out of the reach of children.
- (B) Suffocating can be prevented by keeping plastic bags out of the reach of children.
- (C) To prevent them from suffocating, plastic bags should be kept out of the reach of children.
- (D) To prevent children from suffocating, keep plastic bags out of their reach.
- (E) Plastic bags, to prevent the suffocating of children, should be kept out of reach.

**32.** Firecrackers in a roomful of children are more dangerous than grownups.

- (A) than grownups
- (B) than with grownups
- (C) than one with grownups
- (D) than them with grownups
- (E) than firecrackers in a roomful of grownups

**33.** The Internet makes communication more convenient where also more risky.

- (A) where also more risky
- (B) but also more risky
- (C) as also more risky
- (D) because also more risky
- (E) inasmuch as also more risky



**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.

(1) *When an amateur gardener considers using “natural enemy” control of an infestation of aphids (that is, using another insect, rather than a chemical pesticide), chances are that gardener will think first of the ladybug.* (2) *However, there is another natural enemy of the aphid that some gardeners believe is even more effective than the ladybug.* (3) *Ladybugs are cute.* (4) *They are unbuglike to the max in the way they look and appear.* (5) *(The truth is, the ladybug can quite happily become a cannibal if food supplies are scarce.)* (6) *Lacewings also prey on spider mites, whiteflies, moths, leafminers, and small caterpillars.* (7) *This is the green lacewing fly, which is also known as the “aphid lion” because of its skill in hunting down and devouring aphids by the boxcarload!* (8) *In the meantime, they are an important predator of long-tailed mealybugs in greenhouses and interior plantscapes!* (9) *(In fact, some gardeners even regard the lacewing fly as prettier than the ladybug, because of its delicate, filmy wings and huge golden eyes.)*

(10) *Although not as widely known as the ladybug, the green lacewing controls the same pests and is not as prone to fly away from the garden.* (11) *Lacewings can be purchased in the egg stage and will hatch into larvae in 3 to 5 days, or, for faster control, they can be purchased in the larvae stage, which is the stage at which they control pests.* (12) *The lacewing*

*larvae look like tiny, flattened alligators and have hollow mandibles, with which they pierce their prey and suck out body fluids.* (13) *Many other garden predators control pests in the larvae stage.* (14) *After 14 to 21 days the lacewing larvae pupates into a cocoon for about 14 days and emerges as an adult.* (15) *Adults feed on nectar, pollen, and honeydew to stimulate their reproductive process.* (16) *An adult female will lay about 200 eggs, making it easy to get a colony of lacewing going in the garden.* (17) *The larvae will emerge in about 5 days and aggressively devour aphids and other garden pests.*

- 34.** Which of the following is the best way to revise and combine the underlined parts of sentences 3, 4, and 5 reproduced below?

Ladybugs are cute. They are unbuglike to the max in the way they look and appear. (The truth is, the ladybug can quite happily become a cannibal if food supplies are scarce.)

- (A) Ladybugs are cute. They are quite unbuglike in the way they look and appear. (Although the truth is
  - (B) Perhaps this is because ladybugs are cute and quite unbuglike in the way they look and appear (although the truth is
  - (C) Perhaps this is because ladybugs are cute and quite unbuglike in appearance. (Although the truth is
  - (D) Perhaps this is because ladybugs are cute and quite unbuglike in appearance (although the truth is
  - (E) Perhaps this is because ladybugs are cute and quite unbuglike (although the truth is
- 35.** Paragraph 1 of the essay would be more coherent if sentence 7 were placed after
- (A) sentence 2.
  - (B) sentence 3.
  - (C) sentence 4.
  - (D) sentence 5.
  - (E) sentence 6.

- 36.** Which of the following sentences is LEAST relevant to the topic of paragraph 2?

- (A) Sentence 10
- (B) Sentence 11
- (C) Sentence 12
- (D) Sentence 13
- (E) Sentence 14

- 37.** Which of the following would make the best replacement for the underlined phrase in sentence 8, reproduced below.

In the meantime, they are an important predator of long-tailed mealybugs in greenhouses and interior plantscapes!

- (A) In addition, they are
- (B) Hence, they are
- (C) Conversely, they are
- (D) In short, they are
- (E) Then, they are

- 38.** Which of the following is the most likely intended audience for the paper?

- (A) High school students studying insect anatomy
- (B) Biologists performing insect learning experiments
- (C) Potential buyers of ladybugs
- (D) Potential buyers of lacewings
- (E) Naturalists studying the habits of insects

**39.** Given the overall purpose of the paper, the most likely intent of sentence 5 is to

- (A) stimulate interest in the ladybug equal to that of the lacewing.
- (B) attract the attention of research entomologists.
- (C) attract the attention of amateur naturalists.
- (D) make the ladybug less appealing as a competitor of the lacewing.
- (E) stimulate the interest of gardeners who might be using pesticides.

**STOP**

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

## Quick Score Answers

### Section 1 Critical Reading

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

### Section 2 Math

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

### Section 3 Critical Reading

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

### Section 4 Math

1. D
2. C
3. B
4. A
5. A
6. D
7. B
8. A
9. D
10. B
11. 82.81
12. .325
13. 60
14. 17.86 feet
15. .75
16. 16 bags
17. 3 hours
18. 15
19. 0.02
20. 20 buckets

### Section 5 Writing Skills

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

## Explanatory Answers

### Section 1—Critical Reading

1. **The correct answer is (A).** This is a definition sentence. Both words in choice (A) are positive words, as are the words in the sentence itself. The words in the other sets contradict one another.
2. **The correct answer is (D).** This is a definition sentence. *Focus* is necessary for *precision* and *clarity* in writing. Choices (A) and (C) make no sense in context and can be discarded immediately. To be *bold*, choice (B), is not necessarily to be *precise* and *clear*. There is no way for an editor to make a writer *talented*, choice (E).
3. **The correct answer is (B).** This is a comparison/contrast sentence. Ask yourself, “What is the opposite of having everything spelled out?” The first words in choices (A), (B), and (C) may all seem plausible, but when you reach the second word in each set, *imagination* will probably catch your eye. To *conjure* is to summon, and it also has the connotation of magic, which fits with the word *imagination*.
4. **The correct answer is (D).** This is a cause-and-effect sentence. Ask yourself, “Among the choices, which is the most logical reason for tracking hikers in a forest?”
5. **The correct answer is (E).** This is a definition sentence. All the other choices may be true of (some) flowers, but in the context of *nutritious*, the word *edible* makes most sense. (Again, remember that you are looking for the best and most logical answer, not just a possible one.)
6. **The correct answer is (A).** The excerpt from the poem expresses the way the *Cat* (representing nature) expresses reverence (*worships*) toward *the Living God*. Choice (B) is incorrect because the author’s comments about the poem would still be comprehensible without the lines. Choice (C) is incorrect because the passage is about Smart’s feelings, not about the author’s. Choice (D) is incorrect because the author’s own opinions about Smart’s sanity are not directly expressed. Choice (E) is incorrect because, although Smart’s love for his cat was probably real, it is not discussed in the passage.
7. **The correct answer is (D).** The phrase *so-called* is commonly used to negate whatever comes after it (e.g., a “so-called good man” probably isn’t). The whole passage implies that Smart was an extraordinary poet, not simply a lunatic. The other answers are not reflected in the passage.

8. **The correct answer is (C).** The passage calls the poem a *meditation on the divine*, and the poem itself speaks of the cat's *duly and daily serving* God. The other choices are not mentioned in the passage.
9. **The correct answer is (B).** The passage states that the Devil's Advocate's role is to *counter* (that is, to argue against) the group's decision. Choice (A) is wrong because one can argue against something without necessarily reviling it. Choices (C), (D), and (E) are wrong because the passage does not suggest that the Devil's Advocate is there to agree with, nullify, or speed up the group's decision.
10. **The correct answer is (E).** The passage makes it clear that *Groupthink* causes conformity. The other choices are not mentioned in the passage.
11. **The correct answer is (B).** Choice (B) is the only one that satisfies the criteria for groupthink discussed in the passage: Each group member conforms, though secretly disagreeing, and a bad decision results. Choices (A) and (E) are wrong because no one secretly disagrees at the time the decisions are made. Choices (C) and (D) are wrong because the members do not conform out of desire for consensus, but out of duty in the first case, and out of fear in the second.
12. **The correct answer is (D).** Reread the example of Mr. Place. This is a good passage on which to practice making inferences, because, although the message of the passage is serious, it's delivered with humor, and the author doesn't always say directly what he means.
13. **The correct answer is (D).** To *vitiate* is to *spoil*. Note the word *abort* in the same sentence.
14. **The correct answer is (E).** The phrase is used literally here, with *holiest* meaning "highest."
15. **The correct answer is (C).** Remember to look first at the ideas or examples immediately preceding and following the segment in question. In lines 26–29 (which follow the statement), the author gives the example of the Place children's relationship with their father: the children learned (apparently, at least in Francis's case, *without bitterness*) to *keep out of their father's way*.
16. **The correct answer is (A).** The passage makes it clear that Francis's father did not care enough about his children to try to influence their thinking.

17. **The correct answer is (B).** Note the phrases *But as compared* and *compared to* (lines 45 and 55–56). Also, a careful read-through will rule out the other choices. Choice (E) is wrong because there is no hint of bitterness in the essay.
18. **The correct answer is (B).** In the context of the entire essay, it is apparent that the author does not believe Mr. Place has the remotest connection with *Providence*. He is exaggerating to make a point.
19. **The correct answer is (C).** This choice fits in with the light tone of the whole essay, which rules out the sobering choices of (A), (B), and (E). The author doesn't seem, in general, to think parents necessarily *know best*, choice (D), so choice (C) is the most logical choice.
20. **The correct answer is (B).** Throughout the essay, the author advocates treating children in a straightforward, nonpatronizing manner, which implies that he respects them.
21. **The correct answer is (A).** Choices (B), (C), and (E) are too narrow to be the main idea. *Environmentalists*, choice (D), are not mentioned in the paragraph.
22. **The correct answer is (E).** The other choices are either not mentioned or are contradicted in the paragraph.
23. **The correct answer is (A).** See lines 5–8. The other choices are not reflected in paragraph 1.
24. **The correct answer is (C).** The entire paragraph deals with the geographical diversity of wetlands.
25. **The correct answer is (D).** See the first sentence of the paragraph.

## Section 2—Math

1. **The correct answer is (E).** If you remember to **Please Excuse My Dear Aunt Sally**, it will help you perform operations in the right order, which are: **P**arentheses, **E**xponents, **M**ultiplication, **D**ivision, **A**ddition, and **S**ubtraction. This means we must add the  $7 + 1$  first, since they are enclosed within parentheses, then multiply by 4, and finally subtract 6, to get the answer 26.
2. **The correct answer is (A).** Supplementary angles are those that, when measured together, form a  $180^\circ$  angle. An obtuse angle has an angle measure greater than  $90^\circ$  but less than  $180^\circ$ . Because  $\alpha$  and  $\beta$  are supplementary, we know that  $\alpha + \beta = 180^\circ$ , which means  $\alpha = 180^\circ - \beta$ . Since  $\beta > 90^\circ$ , it follows that  $180^\circ - \beta < 90^\circ$ , or  $\alpha < 90^\circ$ . Therefore,  $\alpha < \beta$ .

**3. The correct answer is (C).**

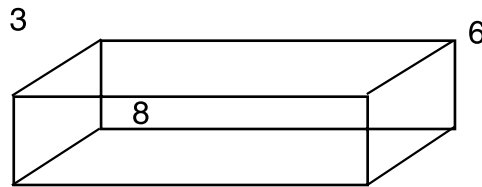
Since  $3y = z - x$

$$y = \frac{(z - x)}{3}$$

or

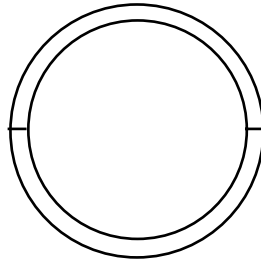
$$y = \frac{1}{3}(z - x)$$

- 4. The correct answer is (B).** The dimensions of the rectangular solid are: Length ( $L$ ) = 8, Width ( $W$ ) = 6, Height ( $H$ ) = one half its width =  $\frac{6}{2} = 3$ . Now plug these values into the formula for volume of a rectangular solid to find the answer:



$$V = H \times W \times L = 3 \times 6 \times 8 = 144 \text{ cubic inches}$$

- 5. The correct answer is (A).** As the cross-sectional diagram below shows, the wall thickness is one half of the difference in the two diameters.



Subtract .625, the inner diameter, from the outer diameter .750, to get the difference in diameters, .125. Remember, .125 is the thickness of both walls. The question asks us to find the thickness of one wall, so you must divide .125 by 2 to get the right answer, .0625.



6. **The correct answer is (D).** To solve this problem, first, translate the words into algebraic form, then solve for the price,  $P$ .

The pants sells for \$6 more than 75% of the price, which can be restated as:

$$P = 6 + .75P$$

$$P - .75P = 6$$

$$P(1 - .75) = 6$$

$$.25P = 6$$

$$P = \frac{6}{.25}$$

$$P = 24$$

7. **The correct answer is (C).** The sum of the angles of a triangle is  $180^\circ$ . Since we know the measures of two of the angles, we can compute the measure of the third:

$$180^\circ - 60^\circ - 90^\circ = \alpha$$

$$120^\circ - 90^\circ = \alpha$$

$$30^\circ = \alpha$$

8. **The correct answer is (E).** To figure this one out, translate the words into an equation, then solve for  $x$ . What % of 5 is 90% of 50 becomes

$$\frac{x}{100}(5) = \frac{90}{100}(50)?$$

$$\frac{5x}{100} = \frac{[(90)(50)]}{100}$$

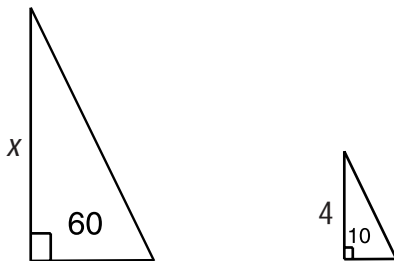
$$5x = \frac{[(100)(4500)]}{100}$$

$$5x = 4500$$

$$x = 900$$

9. **The correct answer is (E).** For  $(a \times b)$  to be less than zero, either  $a$  or  $b$  (but not both  $a$  and  $b$ ) must be less than zero. All the other choices result in values that are either zero or greater than zero.

10. **The correct answer is (D).** This problem can be solved easily using the method of similar triangles. Both the flag pole and the fence post form a right angle with the surface of the earth and the sun's rays strike both objects at the same angle, therefore we have two similar triangles. To solve a similar triangle problem, set up a proportion.



$$\begin{aligned}\frac{x}{60} &= \frac{4}{10} \\ 10x &= 240 \\ x &= 24\end{aligned}$$

11. **The correct answer is (E).** To solve this problem, plug in the values for  $x$ ,  $y$ , and  $z$ , then simplify.

$$\begin{aligned}&= \left(9x^3 - \frac{z^2}{2}\right)\left(\frac{y}{11}\right) \\&= \left((9)(-1)^3 - \frac{2^2}{2}\right)\left(\frac{1}{11}\right) \\&= (-9 - 2)\left(\frac{1}{11}\right) \\&= \frac{-11}{11} \\&= -1\end{aligned}$$

12. **The correct answer is (B).** This is false because  $P$  and  $Q$  are supplementary angles and cannot be equal because they cannot be  $90^\circ$ . The other choices are all true because they are vertical angles, choices (A) and (E), alternate interior angles, choice (C), or corresponding angles, choice (D).

- 13. The correct answer is (B).** Solve this one by translating the word into an algebraic relationship. We know the coins are only nickels or dimes. Of the 11 coins, we are asked to find  $x$ , the number of dimes. This means there are  $x$  dimes and  $(11 - x)$  nickels. Now translate this information into algebraic form:

$$.65 = (\text{value of a dime})(\text{number of dimes}) + (\text{value of a nickel})(\text{number of nickels})$$

$$= (.10)x + (.05)(11 - x)$$

$$= .10x + .55 - .05x$$

$$= (.10 - .05)x + .55$$

$$= .05x + .55$$

$$.05x = .65 - .55$$

$$x = \frac{.10}{.05}$$

$$x = 2$$

- 14. The correct answer is (A).** To solve this one, translate the words into an equation, then solve for  $x$ .

What percent of two gallons is a quart or  $(x\%)(2 \text{ gallons}) = 1 \text{ quart}$

Next, convert gallons to quarts so the units match:

2 gallons = 8 quarts.

$$(x\%)(8 \text{ quarts}) = 1 \text{ quart}$$

$$\left(\frac{x}{100}\right)(8) = 1$$

$$8x = 100$$

$$x = 12.5$$

- 15. The correct answer is (D).** To solve this problem quickly, recognize that  $m\angle CAD = m\angle EAD$ , one angle of the triangle  $AED$ . If we can find the measure of  $\angle ADE$  and  $\angle AED$ , we can subtract them from  $180^\circ$  to find  $\angle EAD$ . We are given the measure of  $\angle ADE$  in another form, as arc  $AB = 40^\circ$ . To find  $m\angle AED$ , notice that it is a supplementary angle to  $\angle CED = 60^\circ$ . This means  $m\angle AED = 180^\circ - 60^\circ = 120^\circ$ . Now we can solve for  $m\angle EAD = m\angle CAD$ .

$$m\angle CAD = 180^\circ - 20^\circ - 120^\circ$$

$$m\angle CAD = 40^\circ$$

- 16. The correct answer is (D).** First, we must translate the words into an algebraic equation. Since the shopper pays 30% less than the original price ( $P$ ), the equation is:

$$P - .30P = 420$$

$$(1 - .30)P = 420$$

$$.70P = 420$$

$$P = \frac{420}{.70}$$

$$P = 600$$

- 17. The correct answer is (E).** Solve this problem by setting up an equation, solving for  $\angle B$ , then solving for  $\angle C$ .

$$m\angle A + m\angle B + m\angle C = 180^\circ$$

$$6m\angle B + m\angle B + 2m\angle B = 180^\circ$$

$$9m\angle B = 180^\circ$$

$$m\angle B = 20^\circ$$

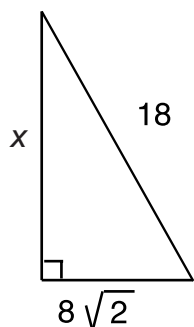
Remember, the question asks us to find  $\angle C$ !

$$m\angle C = 2m\angle B = (2)(20^\circ) = 40^\circ$$

- 18. The correct answer is (D).**

$$\begin{aligned} \frac{a}{c} \frac{b}{d} + \frac{a}{c} \frac{b}{d} + 2cb &= (ad - cb) + (ad - cb) + 2cb \\ &= ad - cb + ad - cb + 2cb \\ &= 2ad - 2cb + 2cb \\ &= 2ad \end{aligned}$$

19. **The correct answer is (C).** As the diagram below shows, before we can find the area, we must find the height of the triangle ( $x$ ).



Solve for  $x$  using the Pythagorean Theorem:

$$\begin{aligned}x^2 + (8\sqrt{2})^2 &= (18)^2 \\x^2 &= (18)^2 - (8\sqrt{2})^2 \\x^2 &= 324 - 128 \\x^2 &= 196 \\x &= 14\end{aligned}$$

Now, find the area of the triangle using the formula for area of a triangle:

$$\begin{aligned}A &= \frac{1}{2} \text{ base} \times \text{height} \\&= \left(\frac{1}{2}\right)(8\sqrt{2})(14) \\&= (7)(8\sqrt{2}) \\&= 56\sqrt{2}\end{aligned}$$

20. **The correct answer is (E).** Solve this problem in two steps. First, solve for  $a$  in the first equation:

$$\begin{aligned}a + b &= 27 \\a &= 27 - b\end{aligned}$$

Second, plug this value for  $a$  into the second expression:

$$\begin{aligned}3c - a &= 0 \\3c - (27 - b) &= 0 \\3c &= 27 - b \\c &= 9 - \frac{b}{3}\end{aligned}$$

### Section 3—Critical Reading

1. **The correct answer is (C).** The purpose of *anesthesia* is to ease *discomfort*. Remember to read all the choices. Be careful not to choose a word that is similar to the one that logically fits, but wrong—in this case, choice (A), *discomfiture*, which means embarrassment. If you're not sure what the other choices mean, it would be a good idea to look them up now.
2. **The correct answer is (B).** In this question, it's likely you can rule out all the wrong choices pretty rapidly! Can you see why?
3. **The correct answer is (B).** This word, which means *to give support to*, is the only choice that makes sense in the context of the sentence.
4. **The correct answer is (C).** Toothbrushing is logically related to *hygiene*. Choices (A) and (B) have nothing to do with tooth care. Choices (D) and (E) are services performed by a dentist but are unrelated to toothbrushing.
5. **The correct answer is (A).** Remembering that the prefix *in-* means “not” may help with this question. Therefore *inappropriate* means “not appropriate.”
6. **The correct answer is (D).** This is a definition question. The first segment of the sentence gives you a clue that you are looking for a word closely related to *privacy*. *Confidential* fits perfectly.
7. **The correct answer is (E).** The other choices, while perhaps true of iguanas, have nothing to do with avoiding pet hair due to allergies. Always make sure you consider the context of the sentence.
8. **The correct answer is (A).** This is a cause-and-effect sentence. Ask yourself, “What would prompt a conservative doctor to use a perhaps unorthodox treatment?” The logical answer to this question rules out choices (B), (C), and (E). Of the two choices left, the combination of words that makes more sense is choice (A).
9. **The correct answer is (D).** The question has the effect of making the reader want to know the answer. Choice (A) is wrong because the question has no information in it. Choices (B) and (E) are wrong because there is nothing unpleasant in the question that would *goad* or *disturb* the reader. Choice (C) is wrong because the question is rhetorical, and therefore not meant to be answered by the reader.
10. **The correct answer is (C).** The passage says that Phileas Fogg was not *avaricious*; this is followed by the suggestion that he was often generous. The other choices are not supported by the passage.

11. **The correct answer is (A).** The words *terrify*, *enslave*, and *monopolize* are harshly accusatory words that denounce organized religion. Choice (C) has a positive connotation; choices (B), (D), and (E) imply a neutral stance.
12. **The correct answer is (B).** Paine considers the teachings of all organized churches *human inventions*, implying that he does not regard any as divinely inspired. Choices (A) and (C) are wrong because he condemns all organized churches, not just those of “foreign” cultures; also he does not discuss other religions in terms of a belief in one god. Choice (D) is wrong because he does not express approval of any national church, implying he sees no *good* in any of them. Choice (E) is wrong because, although Paine implies his own beliefs are private, he does not say they are unique.
13. **The correct answer is (E).** One of the denotations of the word *invention* is *fabrication*, which also has the connotation of *falsehood*—this fits best with the sentiment expressed.
14. **The correct answer is (B).** To stow away in someone else’s luggage would be an adventure. Choice (C) is wrong because, although stowing away is illegal, it is not necessarily injurious to another person as fraud would be. The other choices do not make sense in the context.
15. **The correct answer is (A).** *Sheltered* is the only choice that has a positive (*benign*) connotation. The other choices might apply to a prison, but not to a *benign prison*.
16. **The correct answer is (C).** See lines 6–9. The other devices are not used in the paragraph.
17. **The correct answer is (A).** See lines 30–32. The other choices are not in the paragraph.
18. **The correct answer is (B).** Notice the phrase *but they retain* later in the same sentence—you’ll be looking for a word that contrasts with that phrase. Choice (B) is the only one.
19. **The correct answer is (C).** This is implied by the word *accountability*. The other choices are not found in this paragraph.
20. **The correct answer is (C).** The others are civil and political rights.
21. **The correct answer is (C).** If there are footnotes with the passage, always be sure to read them.

22. **The correct answer is (B).** This is the meaning of the word “universal.” That word is repeated throughout the document. The other choices are restrictions that do not exist in the document.
23. **The correct answer is (C).** Again, the Declaration is intended to deal with *universal* rights and is based on the idea that people have certain rights simply by virtue of being human.
24. **The correct answer is (D).** The point of the two articles is that all people have the right to legal remedy.
25. **The correct answer is (A).** See lines 60–62, which speak of equal rights *as to marriage, during marriage, and at its dissolution*.
26. **The correct answer is (C).** Both passages make it clear that all people, regardless of status, have basic rights by virtue of being human, and that these rights are clear and can be neither bought nor relinquished.
27. **The correct answer is (D).** Article 16 covers various aspects of marriage, which fits under the heading of social and cultural rights.

## Section 4—Math

1. **The correct answer is (D).** Tackle this problem by simplifying it one step at a time. First, eliminate the negative exponents, then convert the rational exponents to their equivalent radical forms. Finally, simplify the expression to find the answer.

$$\begin{aligned}
 4^{-\frac{3}{2}} + 64^{-\frac{1}{3}} &= \frac{1}{4^{\frac{3}{2}}} + \frac{1}{64^{\frac{1}{3}}} \\
 &= \frac{1}{(\sqrt{4})^3} + \frac{1}{\sqrt[3]{64}} \\
 &= \frac{1}{2^3} + \frac{1}{4} \\
 &= \frac{1}{8} + \frac{1}{4} \\
 &= \frac{3}{8}
 \end{aligned}$$



2. **The correct answer is (C).** Figure this one out by solving for  $x$ .

$$4x + 3y = 12 + 3y$$

$$4x = 12 + 3y - 3y$$

$$4x = 12$$

$$x = 3$$

Since 3 can also be expressed as  $\frac{3}{1}$ , choice (C) is the correct answer.

3. **The correct answer is (B).** We find the probability of a successful outcome—that the dart will land inside the inner square—by comparing the area of the inner square to the area of the outer square. The inner square has an area of  $2 \times 2 = 4$  sq. ft. The outer square has an area of  $6 \times 6 = 36$  sq. ft. So, the probability that the dart will land inside the inner square is  $\frac{4}{36}$ , or  $\frac{1}{9}$ .
4. **The correct answer is (A).** Since the total of all angles of the triangle must equal  $180^\circ$ , we know that  $\angle PQR + 45^\circ + 90^\circ = 180^\circ$ , or  $\angle PQR = 180^\circ - 135^\circ = 45^\circ$ . This means  $\angle PQR = \angle QPR$ , and since the sides opposite equal angles have equal lengths, we can conclude that  $PR = QR = 5$ . This solution can also be derived by identifying the triangle as an isosceles right triangle, in which case the length of the two legs must be of equal length.
5. **The correct answer is (A).** You can solve this by multiplying the exponents together:
- $$(x^2)^{\frac{1}{2}} = x^{\left(\frac{2}{1}\right)\left(\frac{1}{2}\right)} = x^{\frac{2}{2}} = x^1 = x = 6$$
- Or, by converting the expression into its equivalent radical expression, you have:  $\sqrt{x^2}$ . Now it is easy to see that the answer is just  $x = 6$ .
6. **The correct answer is (D).** Substituting 2 for  $y$ , the expression becomes:  $4 + 4x = 24$  or  $4x = 20$ , which simplifies to  $x = 5$ .
7. **The correct answer is (B).** If you recognize the triangle as a  $30^\circ$ – $60^\circ$ – $90^\circ$  triangle, you know that  $\beta = 60^\circ$ . Now,  $\alpha$  and  $\beta$  are supplementary angles, so  $\alpha + \beta = 180^\circ$ , or  $\alpha = 180^\circ - 60^\circ = 120^\circ$ .

8. **The correct answer is (A).** Solve this problem by renaming fractions as decimals.

This problem is a snap if you use your calculator. Or, you can work it out as follows:

$$\begin{aligned}\frac{1}{.04} &= \frac{1}{\left(\frac{4}{100}\right)} \\ &= 1 \times \left(\frac{100}{4}\right) \\ &= 25\end{aligned}$$

9. **The correct answer is (D).** Solve this problem by creating a formula, a mathematical model, that uses a variable to represent the unknown quantity. Since we are asked to find the number of miles we can drive, let's make  $x$  = number of miles. We know that the total number of dollars we have budgeted for this trip is \$400. We also know that the components of this total are \$220 for the weekly rental plus 40 cents for every mile we drive. Our next step is to translate these words into a mathematical model, or equation, then solve for  $x$ .

$$\begin{aligned}220 + 0.40x &= 400 \\ 0.40x &= 400 - 220 \\ 0.40x &= 180 \\ x &= \frac{180}{0.40} \\ x &= 450\end{aligned}$$

10. **The correct answer is (B).** Since one-third of a three-mile trail is 1 mile, which takes one hour, it takes 1 hour, or 60 minutes, to walk 1 mile.

11. **The correct answer is 82.81.** If you know your decimal equivalences by heart, you can rapidly solve this one by renaming the fractions as decimals:

$$\begin{aligned}x &= \frac{2}{10} + \frac{2}{5} + \frac{2}{4} + 8 \\ &= .2 + .4 + .5 + 8 \\ &= 1.1 + 8 \\ &= 9.1\end{aligned}$$

But wait, we are asked to find  $x^2$ . The correct answer is  $(9.1)^2 = 82.81$ .

- 12. The correct answer is .325.** Rewriting the radical expressions and simplifying, we have:

$$x = \sqrt{\frac{1}{64}} + \sqrt{\frac{1}{25}} = \frac{\sqrt{1}}{\sqrt{64}} + \frac{\sqrt{1}}{\sqrt{25}} = \frac{1}{8} + \frac{1}{5} = .125 + .2 = .325$$

- 13. The correct answer is 60.** Translating the words into algebraic form gives us the following equation:

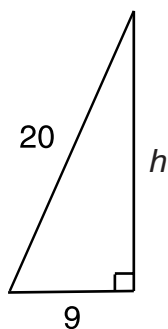
$$9 = 15\% \text{ of } x$$

$$\text{or } 9 = .15x$$

$$x = \frac{9}{.15}$$

$$x = 60$$

- 14. The correct answer is 17.86 feet.** As the following diagram shows, this problem can easily be solved using the Pythagorean Theorem,  $a^2 + b^2 = c^2$ .



We want to solve for  $h$ , and the equation is:

$$h^2 + 9^2 = 20^2$$

$$h^2 = 20^2 - 9^2$$

$$h^2 = 400 - 81$$

$$h^2 = 319$$

$$h = \sqrt{319}$$

$$h = 17.86 \text{ ft.}$$

- 15. The correct answer is .75.** The expression is equal to:

$$\frac{\frac{6}{10} - \frac{1}{10}}{\frac{2}{6} + \frac{3}{6} - \frac{1}{6}} = \frac{\frac{5}{10}}{\frac{4}{6}} = \frac{\frac{1}{2}}{\frac{2}{3}} = \left(\frac{1}{2}\right)\left(\frac{3}{2}\right) = \frac{3}{4} = .75$$

- 16. The correct answer is 16 bags.** To solve this one, divide the total weight by the unit weight to find the number of units:

$$\frac{1000}{60} \approx 16.67$$

Round down to 16 for your answer because the question asks us to find the number of full bags the truck can carry without going over 1,000 lbs.

- 17. The correct answer is 3 hours.** A rate of 25 miles in 20 minutes is equivalent to 75 mph. Use the formula, Distance = Rate  $\times$  Time, to solve this problem. We know the distance ( $D$ ) and the Rate ( $R$ ), and we want to solve for time ( $T$ ).

$$D = RT$$

$$225 = 75T$$

$$T = \frac{225}{75}$$

$$T = 3 \text{ hours}$$

- 18. The correct answer is 15.** Since  $\angle AED$  and  $\angle BEC$  are vertical angles, they are equal, which means we have similar triangles. Set up a proportion that relates the sides of one triangle to the sides of the other, then solve for length  $AD$ .

$$\frac{BE}{DE} = \frac{BC}{AD} \Rightarrow \frac{16}{24} = \frac{10}{AD}$$

$$(16)(AD) = (10)(24)$$

$$AD = \frac{240}{16}$$

$$AD = 15$$

- 19. The correct answer is 0.02.** Use your calculator here to speed things up. Or, you can calculate it manually as follows:

$$\frac{0.64}{8} - \frac{0.36}{6} = \frac{(6)(0.64) - (8)(0.36)}{48} = \frac{3.84 - 2.88}{48} = \frac{0.96}{48} = 0.02$$

20. **The correct answer is 20 buckets.** The number of buckets is at a maximum when the weight per bucket is at a minimum, therefore we should choose 12 pounds as the number to divide into 240. The algebraic relationship is as follows:

Total weight = (bucket weight)  $\times$  (number of buckets)

$$240 = 12 \times (\text{number of buckets})$$

$$\frac{240}{12} = \text{number of buckets}$$

$$20 = \text{number of buckets}$$

It will take a maximum of 20 buckets to fill the container to a net weight of 240 pounds.

### Section 5—Writing Skills

1. **The correct answer is (C).** This is a subject-verb agreement mistake. The subject (*errors*) is plural; its verb (*results*) is singular.
2. **The correct answer is (C).** The error is one of shift in tense, from past (*was*) to present (*kicks*).
3. **The correct answer is (C).** There is a shift in tense from past (*stood*) to present (*won't*).
4. **The correct answer is (D).** The error is that of a shift in person from third (*one*) to second (*you*).
5. **The correct answer is (D).** Items in a series should be grammatically parallel. A third noun, *poverty*, is needed to balance the nouns *hunger* and *disease*.
6. **The correct answer is (D).** The error is that of faulty use of a preposition (*with*). The correct wording would be *participate in*.
7. **The correct answer is (B).** The error is that of a misplaced modifier. The sentence appears to be saying that *a slope* is *learning to ski*.
8. **The correct answer is (D).** The error is one of misuse of the preposition *onto*. The wording should be *seared into*.
9. **The correct answer is (D).** The sentence has illogical construction. (An adverb clause is mixed with a predicate, but you do not have to know these terms. It is enough to know that “something is wrong” in the sentence and to correctly indicate where.)
10. **The correct answer is (E).** The sentence is written in standard English, with no errors.

11. **The correct answer is (B).** This segment contains a misplaced modifier. The *constitutional right* cannot arrest anyone; that is a job for the police.
12. **The correct answer is (B).** The error is in subject-verb agreement. The verb should be *were*, not *was*, to agree with the plural subject *teachers*.
13. **The correct answer is (B).** The error is one of a shift in tense from future (*will not*) to past (*was mad*).
14. **The correct answer is (C).** The error is a shift in tense from past (*entered*) to present (*sniffs*). The correct form of the verb is *sniffed*.
15. **The correct answer is (B).** The error here is the use of a nonstandard form of the pronoun *himself*.
16. **The correct answer is (D).** The error is in the use of an incorrect verb form (*had drank*). The correct form is *had drunk*.
17. **The correct answer is (E).** The sentence is correctly written. Don't be misled by the plural noun (*officers*) that comes between the singular subject (*The company president*) and the verb (*has*).
18. **The correct answer is (C).** The error here is a shift in tense from present (*pitches* and *speeds*) to past (*covered*).
19. **The correct answer is (E).** The sentence is correctly written.
20. **The correct answer is (A).** Choices (B) and (C) contain sentence fragments. Choice (D) erroneously places a comma between subject (*The sting*) and verb (*went*). Choice (E) erroneously places a comma between the preposition (*except*) and its object (*for a brief moment*).
21. **The correct answer is (C).** The word *fell* is in the past tense, as are *finished* and *retired* in the first part of the sentence. So this is the only sentence among the choices given that uses proper parallel structure. Choice (E) contains a nonstandard form of the verb fall (*falled*), as well.
22. **The correct answer is (B).** Choices (A) and (D) are run-on sentences; choice (C) contains a sentence fragment. Choice (E) improperly places a comma between the subject and verb.
23. **The correct answer is (A).** This is a complete sentence. Choice (B) is a comma splice, choice (C) is a run-on sentence, choice (D) contains a sentence fragment, and choice (E) shows a comma between the verb *decide* and its object *whom*.

24. **The correct answer is (B).** This is the only choice that uses the correct prepositional phrase (*capable of being*).
25. **The correct answer is (D).** The modifier *with an exasperated sigh* should be placed next to *Jody's boss*. In addition, choice (C) contains a sentence fragment.
26. **The correct answer is (B).** This choice is the only one that uses the correct forms of the adjectives *pretty* and *mean*.
27. **The correct answer is (C).** The word *however* is the clearest and most logical transitional word between the two clauses.
28. **The correct answer is (B).** It is the least redundant and wordy sentence of the five.
29. **The correct answer is (B).** In the other choices, the pronoun reference is ambiguous—who's in Spain? Choices (C) and (E) also contain misplaced modifiers: *While he was in Spain*, which seems to refer to a letter, rather than a person.
30. **The correct answer is (E).** It is the clearest and makes effective and consistent use of parallel structure. All the other choices misuse verb tenses.
31. **The correct answer is (D).** The words in the sentence are in logical order. Choices (A) and (B) are ambiguous—both imply that children might be using plastic bags to suffocate someone. Choice (C) contains a misplaced modifier—the plastic bags seem in danger of suffocating. Choice (E) hints that a person might suffocate children if the plastic bag is not kept out of that person's reach.
32. **The correct answer is (E).** The error in the other sentences is that of incomplete comparison.
33. **The correct answer is (B).** This sentence contains the most logical subordinating conjunction, *but*.
34. **The correct answer is (D).** This version has eliminated the cliché *to the max*, the choppiness and redundancy, and the grammatical error in the parentheses. *Perhaps this is because* also provides a smooth transition.
35. **The correct answer is (A).** The pronoun *This* most logically refers to *another natural enemy of the aphid . . . more effective than the ladybug*.
36. **The correct answer is (D).** The characteristics of *other garden predators* are irrelevant to the paragraph, which is all about lacewings.

- 37. The correct answer is (A).** Of the choices, this is the only logical transition. The others do not denote an additional function of the lacewing.
- 38. The correct answer is (D).** The reader can infer that sentences 2, 6, 8, 16, and 17, in particular, advertise the lacewing as a predator of garden pests.
- 39. The correct answer is (D).** The paper appears to be an advertisement in which the ladybug is featured as a competitor of the lacewing.



## 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 40. 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.