



SECTION 2

Time — 25 minutes

20 Questions

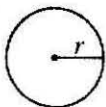
Turn to Section 2 (page 4) of your answer sheet to answer the questions in this section.

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

Notes

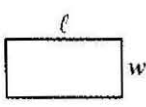
1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is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

Reference Information

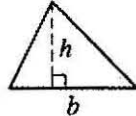


$$A = \pi r^2$$

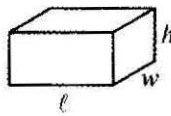
$$C = 2\pi r$$



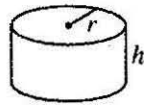
$$A = lw$$



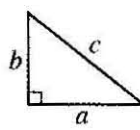
$$A = \frac{1}{2}bh$$



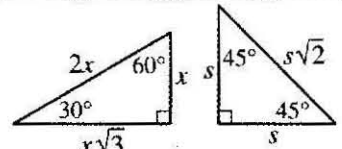
$$V = lwh$$



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



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



Special Right Triangles

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

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

1. In which of the following pairs do both numbers round to the same whole number?

- (A) 4.2 and 4.8
(B) 4.4 and 4.6
(C) 4.6 and 5.6
(D) 4.8 and 5.1
(E) 5.1 and 5.6

2. Harriet took 48 minutes to ride her bike the distance from her house to the town library. If she rode at a constant rate, what fraction of the total distance did she ride in the first 12 minutes?

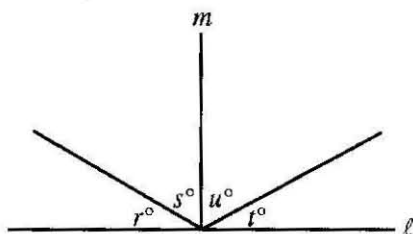
- (A) $\frac{1}{4}$
(B) $\frac{1}{3}$
(C) $\frac{1}{2}$
(D) $\frac{2}{3}$
(E) $\frac{3}{4}$

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3. If $3x + ky = -1$, $x = 3$, and $y = 5$, what is the value of k ?

(A) 2
(B) $-\frac{1}{2}$
(C) -1
(D) $-\frac{8}{5}$
(E) -2



Note: Figure not drawn to scale.

4. In the figure above, $\ell \perp m$ and $r = t$. What is u in terms of s ?

(A) $\frac{1}{2}s$
(B) s
(C) $2s$
(D) $45 - \frac{1}{2}s$
(E) $45 + \frac{1}{2}s$

5. A paper towel dispenser gives a 6-inch length of towel each time a sensor is activated. Which of the following functions d gives the total number of inches of paper towel dispensed in terms of n , the number of times the sensor is activated?

(A) $d(n) = \frac{n}{6}$
(B) $d(n) = \frac{6}{n}$
(C) $d(n) = 6n$
(D) $d(n) = n + 6$
(E) $d(n) = 6n + 6$

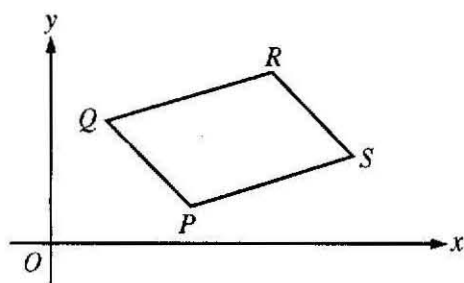
$$A = \{1, 2, 3, 4\}$$

$$B = \{4, 5\}$$

6. If a represents an element from set A above and b represents an element from set B , what is the greatest possible value of $2a - b$?

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

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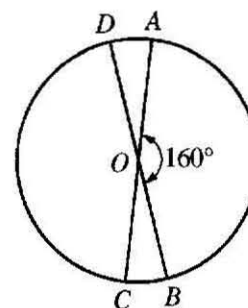


7. In the figure above, $PQRS$ is a parallelogram. What is the slope of \overline{PQ} minus the slope of \overline{RS} ?

(A) -1
(B) $-\frac{1}{2}$
(C) 0
(D) $\frac{1}{2}$
(E) 1

8. If $\sqrt{mp} = 4$, what is the value of $(mp)^2$?

(A) 2
(B) 8
(C) 16
(D) 64
(E) 256

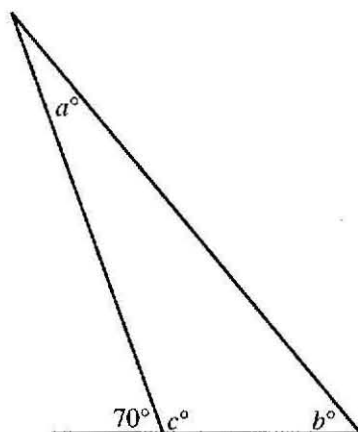


9. In the circle above, \overline{AC} and \overline{BD} are diameters. The length of arc \widehat{AB} is how many times the length of arc \widehat{BC} ?

(A) 8
(B) 9
(C) 16
(D) 17
(E) 18

10. The median of a list of 101 consecutive integers is 86. What is the smallest integer in the list?

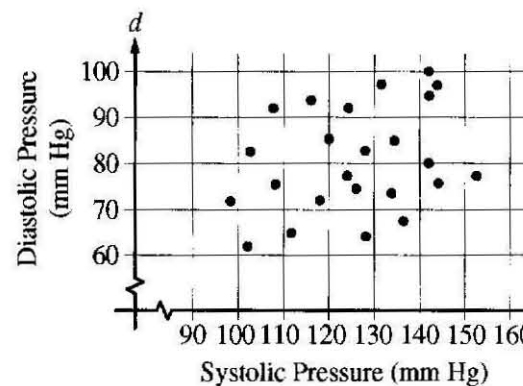
(A) 36
(B) 37
(C) 43
(D) 50
(E) 51



11. In the figure above, one side of a triangle is extended. Which of the following is true?

(A) $a = 70$
 (B) $b = 70$
 (C) $a + b = 70$
 (D) $b - a = 70$
 (E) $c = a + b$

SYSTOLIC VERSUS DIASTOLIC
BLOOD PRESSURES FOR 24 PEOPLE



12. Each point in the scatterplot above represents a person's systolic and diastolic blood pressures. What fraction of the 24 people had either a systolic pressure over 140 millimeters of mercury (mm Hg) or a diastolic pressure over 90 mm Hg, or both?

(A) $\frac{1}{6}$
 (B) $\frac{1}{4}$
 (C) $\frac{1}{3}$
 (D) $\frac{5}{12}$
 (E) $\frac{1}{2}$

13. If y is 2 more than x , which of the following is 4 more than x ?

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

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14. Which of the following CANNOT be a polygon with perimeter 12 and sides that are of integer lengths?

(A) An equilateral triangle
(B) An isosceles right triangle
(C) A square
(D) A rectangle
(E) A parallelogram

15. Which of the following is the equation of a line in the xy -plane that is perpendicular to the line with equation $x = 2$?

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

16. At a school dance, Juan paid \$2.05 for 1 soda and 2 pretzels. Keisha paid \$1.85 for 1 pretzel and 2 sodas. What is the cost of 1 pretzel and 1 soda?

(A) \$1.05
(B) \$1.20
(C) \$1.25
(D) \$1.30
(E) \$1.35

17. What is the greatest total number of Mondays there could be in July and August of the same year? (July and August have 31 days each.)

(A) 6
(B) 7
(C) 8
(D) 9
(E) 10

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18. If $s \neq 9$ and $\frac{s^2 - 81}{s - 9} = t^2$, what does s equal in terms of t ?

(A) $t + 3$
(B) $t - 3$
(C) $\sqrt{t} - 3$
(D) $t^2 + 9$
(E) $t^2 - 9$

19. In a certain sequence, each term after the second is the product of the two preceding terms. For example, the third term is the product of the first and second terms, the fourth term is the product of the second and third terms, and so on. If the seventh term is 1,024 and the sixth term is 32, what is the first term of this sequence?

(A) 1,024
(B) 32
(C) 1
(D) $\frac{1}{32}$
(E) $\frac{1}{1,024}$

20. For all positive integers x , the function f is defined by

$$f(x) = \left(\frac{1}{a^4}\right)^x, \text{ where } a \text{ is a constant greater than 1.}$$

Which of the following is equivalent to $f(2x)$?

(A) $\frac{1}{2}f(x)$
(B) $2f(x)$
(C) $4f(x)$
(D) $(f(x))^2$
(E) $\sqrt{f(x)}$

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.

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SECTION 3

Time — 25 minutes

24 Questions

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

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

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

Example:

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

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

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

1. *Amanita bisporigera*, a variety of destroying angel mushroom, is so ----- that it can be ----- if consumed.
 - (A) delectable . . disgusting
 - (B) poisonous . . deadly
 - (C) scarce . . dangerous
 - (D) common . . nutritious
 - (E) beautiful . . tasty
2. The politician was a ----- speaker whose debating skills were admired even by the ----- she outwitted.
 - (A) clever . . opponents
 - (B) weak . . enemies
 - (C) powerful . . advisers
 - (D) good-hearted . . voters
 - (E) bashful . . applicants
3. Michiko Shoda was not of noble rank when she married into the Japanese imperial family; she was the first ----- to do so.
 - (A) foreigner (B) landowner (C) commoner
 - (D) imposter (E) investor

4. After years of taking art history courses and visiting museums, Ed considered himself a true ----- of fine art.
 - (A) censor (B) guardian (C) pilferer
 - (D) connoisseur (E) simulator
5. The candidate ----- the media's charge of political inexperience by citing his broad background in both local and state government.
 - (A) reiterated (B) rebutted (C) relinquished
 - (D) conflated (E) disregarded
6. As reformers, Martin Luther King, Jr., and Malcolm X each sought to ----- social injustice by distinctly different means.
 - (A) resuscitate (B) exonerate (C) ameliorate
 - (D) replicate (E) elaborate
7. While the movie employs stock characterizations, admirers argue that it is ----- even if its depictions are -----.
 - (A) maladroit . . proficient
 - (B) stimulating . . controversial
 - (C) soporific . . abstruse
 - (D) compelling . . formulaic
 - (E) dismal . . maudlin
8. Believing that scientists should ----- the public about important scientific issues, marine ecologist Jane Lubchenco has urged the research community to abandon its usual ----- in favor of more effective communication.
 - (A) assuage . . diffidence
 - (B) apprise . . candor
 - (C) admonish . . probity
 - (D) edify . . reticence
 - (E) beguile . . sophistry

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

Questions 9-10 are based on the following passage.

Line Just how powerful was Mary Wells Lawrence, the first
woman to found, own, and run a major ad agency, in her
heyday? Maurice Saatchi, the kingpin of British advertising
who founded the world's largest ad conglomerate, puts it
5 this way: "If Mary had decided to go into politics instead
of advertising, she'd have been America's first female
president." Lawrence laughs at this. But Saatchi insists his
biggest "mistake" was failing to persuade Lawrence to let
him buy her agency in 1990. Saatchi was even willing to
10 name her CEO of his holding company.

9. Saatchi's attitude toward Mary Wells Lawrence
is best described as one of

- (A) envy
- (B) dismissal
- (C) uneasiness
- (D) respect
- (E) compassion

10. The author most likely includes the quotation that
appears in lines 5-7 in order to

- (A) indicate that Lawrence was initially interested
in pursuing a political career
- (B) imply that Lawrence inspired women to seek
the position of president of the United States
- (C) suggest how influential Lawrence was in her
chosen profession
- (D) demonstrate that Lawrence wanted to run the
top advertising agency in the world
- (E) reveal the wide-ranging aspirations Lawrence
had for herself

Questions 11-12 are based on the following passage.

Line As with so many endeavors, nature writing has become
increasingly specialized. There has been a generally he
movement from the anthropocentric to the biocentric, from
human focused to world focused, a movement that Thoreau
5 anticipated late in his life with his more scientific writing.
This movement has led to some fine objective writing,
but it has also led to many dull pages, exhaustive and,
occasionally, exhausting works. The problem is that re
are human beings and therefore naturally interested in
10 human. The driving youthful question that enlivened
Thoreau's *Walden*—How to live?—has been all but
forgotten.

11. The author would most likely characterize *Walden*

- (A) dry and boring
- (B) appropriately scientific
- (C) long and exhausting to read
- (D) more about literature than people
- (E) fundamentally human centered

12. The passage as a whole best supports which statement
about the "movement" (line 3)?

- (A) It had surprisingly little impact on readers.
- (B) It would have dismayed Thoreau.
- (C) It vastly improved the genre of nature writing.
- (D) It involved losses as well as gains.
- (E) It was a regrettable development.

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Questions 13-24 are based on the following passages.

These two passages discuss nuclear power in the United States. In 1979 the most serious nuclear plant accident in American history occurred at Three Mile Island in Middletown, Pennsylvania. No physical harm came to workers or people in the community, but sweeping changes in the nuclear industry resulted. Passage 1 is from a collection of essays published in 1982; Passage 2 is from a 2005 article.

Passage 1

At the present time, nuclear power contributes only 3 percent of total United States energy and 12 percent of United States electricity production. The need for additional nuclear plants in the next decade will be minimal. Excess electric generating capacity now exists in most parts of the country, partly as a result of energy conservation efforts by customers over the last few years. We now have the chance to halt further construction of the present design and to send the nuclear designers back to the drawing board. If additional nuclear power plants are to be built, let them be based on a design in which safety comes first, a system that is easy to analyze, a system that is designed specifically to contain meltdowns.

If our society is to control technology rather than let it control us, we must make choices between technologies. We cannot keep giving engineers or scientists unlimited chances to run large-scale experiments that put us all at risk. Other electricity sources such as coal power cause health effects comparable on a cumulative basis to those that will be caused by nuclear power. Many rational people tolerate the uncertain risk of a nuclear accident. Yet, I think even such people would accept the fact that a major accident is sufficiently serious, and that the probability of occurrence is sufficiently uncertain, that nuclear power cannot be perceived as a desirable technology from the perspective of safety. It certainly does not appear to be a satisfactory replacement for coal. Would it not be better to move away from both coal and nuclear power? First, we could lessen the use of these fuels by reducing the demand for electricity through construction of efficient appliances and industrial equipment; then we could replace existing plants with wind power facilities and expanded hydropower facilities.

We should think carefully whether nuclear technology is necessary. When other problems with nuclear power are considered, such as the risk of weapons proliferation and the risks from nuclear wastes, the case against nuclear power gets stronger and stronger. We already depend on one unsatisfactory source of electricity: coal power. Do we want to lock ourselves into another one?

Passage 2

On a cool spring morning 25 years ago, Three Mile Island, a place in Pennsylvania, was catapulted into the headlines and stopped the United States nuclear power industry in its tracks. What had been billed as the clean, cheap, limitless energy source for a shining future suddenly became a huge problem.

In the years since, we've searched for alternatives, pouring billions of dollars into windmills, solar panels, and biofuels. We've designed fantastically efficient lightbulbs, air conditioners, and refrigerators. We've built enough gas-fired generators to bankrupt California. But mainly, each year, we hack 400 million more tons of coal out of Earth's crust than we did a quarter century before, light it on fire, and shoot the proceeds into the atmosphere.

The consequences aren't pretty. Burning coal and other fossil fuels is driving climate change, which is blamed for everything from forest fires and hurricanes to melting polar ice sheets and coastal flooding. Furthermore, coal-burning electric power plants have fouled the air with enough heavy metals and other noxious pollutants to cause serious side effects to humans, according to a Harvard School of Public Health study. Some studies show that a coal-fired plant releases 100 times more radioactive material than an equivalent nuclear reactor—right into the air, too, not into some carefully guarded storage site. Burning hydrocarbons is a luxury that a planet with six billion energy-hungry souls can't afford. There's only one reasonable, practical alternative: nuclear power.

We now know that the risks of splitting atoms pale beside the harmful effects produced by fossil fuels. Radiation containment, waste disposal, and nuclear weapons proliferation are manageable problems in a way that global warming is not. Unlike the usual green alternatives—water, wind, solar, and biomass—nuclear energy is here, now, in industrial quantities. Sure, nuclear plants are expensive to build—upwards of two billion dollars apiece—but they start to look cheap when you factor in the true cost to people and the planet of burning fossil fuels. And nuclear is our best hope for cleanly and efficiently generating hydrogen, which would end our other ugly hydrocarbon addiction—dependence on gasoline and diesel for transport.

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13. The author of Passage 1 uses statistics in lines 1-3 in order to
- (A) suggest that current reliance on nuclear power is fairly modest
 - (B) downplay the cost of developing alternative energy sources
 - (C) raise concern about the safety of nuclear power plants
 - (D) highlight a pitfall of not having adequate sources of electricity
 - (E) emphasize the rapid growth in demand for electricity
14. Taken together, the two passages support which of the following claims about nuclear power in the United States?
- (A) Its risks are largely unknown.
 - (B) Its cost eclipses any of its benefits.
 - (C) It has long been a source of controversy.
 - (D) Its role in electricity production has been growing.
 - (E) Its development has been slow but deliberate.
15. The tone of each passage is best described as
- (A) emphatic
 - (B) jocular
 - (C) disparaging
 - (D) impartial
 - (E) fatalistic
16. The author of Passage 1 views the "engineers" and "scientists" (line 16) with
- (A) approval
 - (B) sympathy
 - (C) puzzlement
 - (D) wariness
 - (E) indifference
17. Which statement would the author of Passage 2 most likely make about the approach advocated in lines 28-33, Passage 1 ("First . . . facilities")?
- (A) It was once impractical but is now worth pursuing.
 - (B) It now needs to be extended beyond the production of electricity.
 - (C) It involved more environmental risk than was justified.
 - (D) It has been tried and thus far found wanting.
 - (E) It underestimated the financial costs.

18. In line 37, "case" most nearly means

- (A) issue
- (B) reality
- (C) situation
- (D) argument
- (E) instance

19. How might the author of Passage 2 respond to the question posed in line 40, Passage 1 ("Do we . . . one")?

- (A) By agreeing that there is a pressing need to find a better alternative to both coal and nuclear energy
- (B) By pointing out that neither coal nor nuclear power can produce sufficient energy to meet our current needs
- (C) By arguing that not enough resources have been allocated to finding green energy alternatives
- (D) By insisting that coal has been unfairly maligned as an energy source
- (E) By asserting that nuclear power's superiority to coal outweighs any such concern

20. The function of the opening paragraph of Passage 2 (lines 41-46) is to

- (A) reflect on a nostalgic moment
- (B) allude to a pivotal event
- (C) trace the history of a place
- (D) question the soundness of a decision
- (E) warn of an unforeseen problem

21. The tone of lines 55-68, Passage 2, is best described as

- (A) vehement
- (B) sanguine
- (C) resigned
- (D) flippant
- (E) caustic

22. The primary concern of Passage 2 is the

- (A) difficulty of containing nuclear waste
- (B) risk of a disastrous nuclear accident
- (C) development of more energy-efficient appliances
- (D) use of an energy source that has a reduced environmental impact
- (E) expanded use of nuclear power as a temporary measure

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23. Both Passage 1 and Passage 2 emphasize the need to

- (A) employ better safety practices at nuclear plants
- (B) undertake more aggressive research on nuclear power
- (C) encourage Americans to curb their energy use
- (D) evaluate energy sources in terms of their potential negative impact
- (E) reduce annual expenses for nuclear power development

24. The concluding paragraph of each passage makes use of which technique?

- (A) Describing personal experiences
- (B) Invoking collective interests
- (C) Citing scholarly authority
- (D) Offering anecdotal commentary
- (E) Posing rhetorical questions

STOP

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

SECTION 5
Time — 25 minutes
35 Questions

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

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

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

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

EXAMPLE:

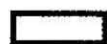
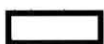
Laura Ingalls Wilder published her first book and she was sixty-five years old then.

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

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

1. While studying mutations in corn, biologist Barbara McClintock discovered that certain genes that were able to move their positions on chromosomes and control the activity of other genes.
 - (A) that were able
 - (B) that had been able
 - (C) were able
 - (D) able
 - (E) to be able

2. Chrysanthemums, lilies, and crocuses are just three types of flowers grew in both European and Asian gardens.
 - (A) flowers grew
 - (B) flowers that grow
 - (C) flowers; their growth
 - (D) flowers, they grow them
 - (E) flowers, they are grown
3. Though the Savannah was the first steamship to the Atlantic Ocean, it relied on its sails, rather than steam engine, for most of the voyage.
 - (A) it relied
 - (B) they relied
 - (C) but it relied
 - (D) but relying
 - (E) relying
4. Richard Axel and Linda B. Buck's research has demonstrated how receptors in the nose detect odors; how receptor cells send information to the brain, the brain recognizes particular odors.
 - (A) also the brain recognizes particular odors
 - (B) and the brain recognizes particular odors
 - (C) and how the brain recognizes particular odors
 - (D) and how particular odors recognized by the
 - (E) then particular odors are recognized by the



5. After each of the architects have finished to present a plan for the building's renovation, the committee considered the proposals and made its decision.

- (A) have finished to present
- (B) have finished presenting
- (C) has finished presenting
- (D) had finished to present
- (E) had finished presenting

6. The United States coal market was dominated by Appalachian coal for a century, which was first mined in the 1800s.

- (A) The United States coal market was dominated by Appalachian coal for a century, which was first mined in the 1800s.
- (B) First mined in the 1800s was Appalachian coal, it dominated the United States coal market for a century.
- (C) First mined in the 1800s, Appalachian coal dominated the United States coal market for a century.
- (D) Appalachian coal, dominating the United States coal market for a century, first mined in the 1800s.
- (E) Appalachian coal being first mined in the 1800s and dominated the United States coal market for a century.

At its fast whirling of partners held as if in an embrace, many people were shocked by the waltz when it was introduced around 1800.

- (A) embrace, many people were shocked by the waltz when it was introduced around 1800
- (B) embrace, around 1800, many people were shocked when the waltz was introduced
- (C) embrace, the waltz shocked many people when it was introduced around 1800
- (D) embrace, the introduction of the waltz, around 1800, shocked many people
- (E) embrace is why many people were shocked by the waltz when it was introduced around 1800

8. Cattle ranchers often view the prairie dog as pests, eating pasture grasses and digs holes that can injure cattle.

- (A) pests, eating
- (B) pests, they eat
- (C) pests that eat
- (D) a pest, although it eats
- (E) a pest because it eats

9. Although one might think that contact lenses are a recent invention, but in fact were developed more than a century ago.

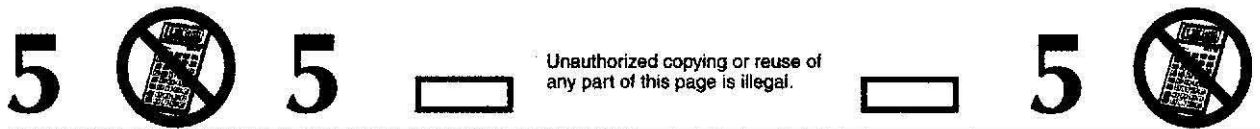
- (A) but in fact were
- (B) but they were in fact
- (C) the fact being that they were
- (D) they have in fact been
- (E) they were in fact

10. By using a thimble to protect your finger from the needle, the thimble makes sewing easier.

- (A) the thimble makes sewing easier
- (B) you can sew more easily
- (C) sewing is easier
- (D) it can be sewn easier by you
- (E) it improves the ease of sewing

11. Unlike several decades ago, today's librarians teach students to evaluate the accuracy and objectivity of online resources in addition to helping them find particular books.

- (A) Unlike
- (B) Unlike them of
- (C) Unlike those of
- (D) Contrary to
- (E) Contrary to those



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

EXAMPLE:

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

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

12. The ancient Sumerians wrote on clay tablets,
 A
which were either hardened to preserve the writing
 B
and left unhardened so that they could be inscribed
 C
 again. No error
 D E
13. Covering the roof of a building with heat-reflecting
 A B
 plants can dramatically reduce the cost of air-
 C D
 conditioning. No error
 E

14. Elizabeth Bishop's unpublished manuscripts contain
 many unfinished drafts; some she intended to revise
 A
but others she never meant to publish, having laid
 B C D
 them aside as mementoes of the past. No error
 E
15. James Houston, whose glass sculptures often depict
 A
 Arctic scenes such as fishing or kayaking, drawn
 B
 his inspiration from Inuit stone carvings he saw
 C D
 while living on Baffin Island. No error
 E
16. Studies of home remedies for mild burns have shown
 A B
 that honey has antibacterial and anti-inflammatory
 C
 properties that may promote healing. No error
 D E
17. Production delays were notoriously difficult
 A
 obstacles to overcome until the company adopted
 B C
 new computer technology that works more effectively
 D
 than the old technology. No error
 E

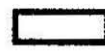
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5



5

18. Either a novel by Isaac Asimov or one by Arthur C.

Clarke are going to be discussed at the next
meeting of the Science Fiction Book Club.
A B C
D

No error
E

19. Larger than the entire state of California, the

Chihuahuan Desert is home to approximately
1,000 plant species found nowhere else in the
A B C
D

world. No error
E

20. The shimmering appearance for which silk

is prized comes from its fibers' prismlike structure,
A B

which allow silk cloth to refract incoming light
C

at different angles. No error
D E

21. The biography describes how, growing up in

a small house with six energetic siblings, Ellis

developed a high tolerance for mayhem and learns
C D

to accommodate the needs of other people. No error
E

22. Because cell phones are so widely used today, many

movie theaters post signs warning that it is not
B C D
permitted during the movie. No error
E

23. Featured in many New York City landmarks, the

vaulted tile ceilings patented by Rafael Guastavino
A B
reflects the influence of Spanish architecture on his
C D

style. No error
E

24. Although snowflakes come in an almost infinite

number of designs, its basic form is a six-pointed
A B C D

star. No error
E

25. In recognition to her extraordinary contributions

to gospel music, in 1988 the National Endowment

for the Arts presented Willie Mae Ford Smith with
C D

a National Heritage Award. No error
E



26. Researchers have discovered that a fish,
A
like a human, processes some kinds of information
B C
with the right side of its brain and other kinds with the
D
left. No error
E

27. New Zealand had fostered a thriving local music
A
scene for decades, but it was not until the late 1980s
B
when New Zealand musicians began to reach
C D
international audiences. No error
E

28. Because neither of the dolls were in its original box,
A
the pair would not be worth as much as the toy
B C
collector had hoped. No error
D E

29. The figures cited in the report do not collaborate the
A B
author's claim that small hospitals generally provide
C
better patient care than do large ones. No error
D E

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

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

Questions 30-35 refer to the following passage.

(1) Should skateboarding be an Olympic event? (2) Many people do not believe it. (3) They object that skateboarding is too new a sport to be included in the Olympic Games. (4) Not only that, they claim that the sport's free-form style and antiestablishment culture are contrary to the Olympic spirit. (5) Skateboarding, they claim, is all about breaking rules, while the Olympics are all about playing by them.

(6) In the first place, skateboarding is not particularly new. (7) Its origins can be traced to the 1950s, when young surfers began riding through the streets of Southern California on flat pieces of wood to which they had attached steel roller-skate wheels. (8) Skateboarding is older than two current Olympic sports—snowboarding and BMX cycling—which were not developed until the 1970s. (9) All three of these sports have relatively high rates of injury.

(10) Moreover, skateboarding does not seem nearly as rebellious as it once did. (11) Countries and cities around the world have created government-approved skateboarding parks. (12) Skateboarding has become a phenomenon of popular culture, with people of all ages playing skateboarding video games at home and watching professional skateboarding competitions on television. (13) And, despite its reputation as a sport without rules, skateboarding has developed standard moves and tricks, as well as accepted criteria for judging skill and performance.

(14) But there is a reason for including skateboarding events in the Olympics that has nothing to do with whether the sport is old or how accepted the sport is. (15) The International Olympic Committee wants to attract young viewers to the Olympic telecasts. (16) It was this desire that prompted the committee to approve snowboarding for the 1998 Winter Games and BMX cycling for the 2008 Summer Games.

5



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30. In context, which of the following is the best version of the underlined portion of sentence 2 (reproduced below) ?

Many people do not believe it.

- (A) (as it is now)
- (B) agree with them
- (C) think so
- (D) have an opinion
- (E) support this statement

31. Which sentence, if placed immediately before sentence 6, would best introduce the second paragraph and link it to the first?

- (A) People often feel threatened by innovation, and these critics are no different, of course.
- (B) Faced with these facts, supporters of Olympic skateboarding must adopt a different strategy.
- (C) Many skateboarders believe that there is more to a sport than just playing by the rules.
- (D) But perhaps the Olympics should make an exception for extreme sports like skateboarding.
- (E) None of these objections stands up to careful examination, however.

32. In context, which is the best version of the underlined part of sentence 10 (reproduced below) ?

Moreover, skateboarding does not seem nearly as rebellious as it once did.

- (A) (As it is now)
- (B) Hopefully, skateboarding
- (C) In other words, skateboarding
- (D) Skateboarding, for instance,
- (E) Skateboarding, by comparison,

33. In context, what is best to do with sentence 12 (reproduced below) ?

Skateboarding was becoming a phenomenon of popular culture, with people of all ages playing skateboarding video games at home and watching professional skateboarding competitions on television.

- (A) Change "was becoming" to "has become".
- (B) Delete "of popular culture".
- (C) Delete "of all ages".
- (D) Insert "who were" before "playing".
- (E) Insert "mainstream" before "television".

34. Which of the following sentences, if inserted after sentence 16, would provide the best conclusion for the passage?

- (A) Like any other television production, telecasts of the Olympics make a lot of money from advertisers.
- (B) Given its considerable popularity among young people everywhere, skateboarding should likewise win the committee's approval in the near future.
- (C) Since these sports were also once considered too extreme for the Olympics, many people still feel that way about skateboarding.
- (D) Despite the persistent objections of its opponents, skateboarding has been around since the 1950s.
- (E) Because it requires high levels of skill, athleticism, and creativity, skateboarding requires that its practitioners be in surprisingly good physical condition.

35. Which of the following sentences should be deleted from the passage?

- (A) Sentence 1
- (B) Sentence 3
- (C) Sentence 4
- (D) Sentence 9
- (E) Sentence 14

STOP

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

6



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6



SECTION 6

Time — 25 minutes

18 Questions

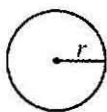
Turn to Section 6 (page 6) of your answer sheet to answer the questions in this section.

Directions: This section contains two types of questions. You have 25 minutes to complete both types. For questions 1–18, each problem and decide which is the best of the choices given. Fill in the corresponding circle on the answer sheet. You may use any available space for scratch work.

Notes

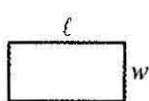
- The use of a calculator is permitted.
- All numbers used are real numbers.
- Figures that accompany problems in this test are intended to provide information useful in solving the problem. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is not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

Reference Information

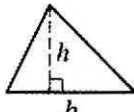


$$A = \pi r^2$$

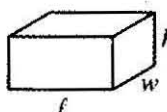
$$C = 2\pi r$$



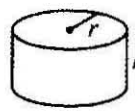
$$A = \ell w$$



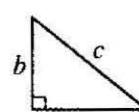
$$A = \frac{1}{2}bh$$



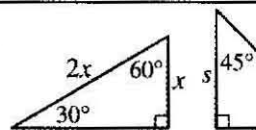
$$V = \ell wh$$



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



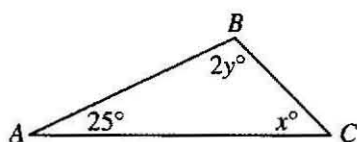
$$c^2 = a^2 + b^2$$



Special Right Triangles

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

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



1. In $\triangle ABC$ above, $y = 55$. What is the value of x ?

- 30
- 45
- 55
- 85
- 90

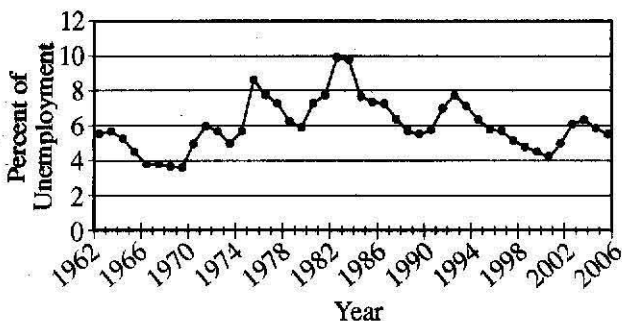
2. If $x = 2$ and y is 3 times x , then $4x$ is how much less than $2y$?

- 2
- 3
- 4
- 6
- 8

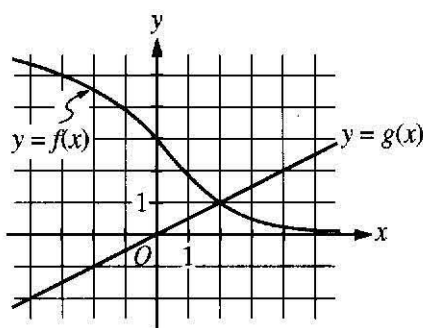
GO ON TO THE NEXT PAGE



PERCENT OF UNITED STATES LABOR
FORCE UNEMPLOYED BY YEAR



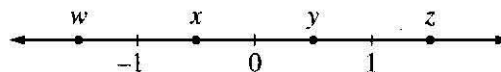
3. The graph above shows the percent of unemployment in the United States each year from 1962 to 2006. According to the graph, in how many of those years was the percent of unemployment greater than 8 percent?
- (A) None
(B) One
(C) Two
(D) Three
(E) Four



4. The graphs of the functions f and g are shown in the xy -plane above. For which of the following values of x does $f(x) = g(x)$?
- (A) 0
(B) 1
(C) 2
(D) 3
(E) 4

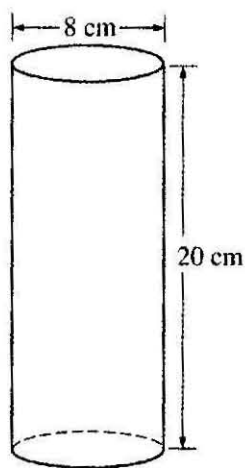
5. In the xy -plane, a circle with radius 5 has its center at $(0, 0)$ and a second circle, with radius 2, has its center at $(8, 0)$. If P can be any point on the first circle and Q can be any point on the second circle, what is the minimum possible distance from P to Q ?

(A) 1
(B) 2
(C) 3
(D) 5
(E) 8



6. On the number line above, w , x , y , and z are the coordinates of the indicated points. Which of the following is NOT true?
- (A) $z - y > x$
(B) $y > xz$
(C) $wx > xy$
(D) $\frac{w}{x} > y$
(E) $\left(\frac{x}{w}\right)^2 > z$

GO ON TO THE NEXT PAGE



7. The figure above represents a right circular cylinder made of paper. It has a height of 20 centimeters and a diameter of 8 centimeters, and it is open at both ends. Of the following, which is closest to the surface area, in square centimeters, of the outside of the paper cylinder?

(A) 450
(B) 475
(C) 500
(D) 525
(E) 550

8. If $ab > 10^5$, then the value of $\frac{a + \frac{1}{b}}{5a}$ is closest to which of the following?

(A) 0.1
(B) 0.2
(C) 0.3
(D) 0.4
(E) 0.5

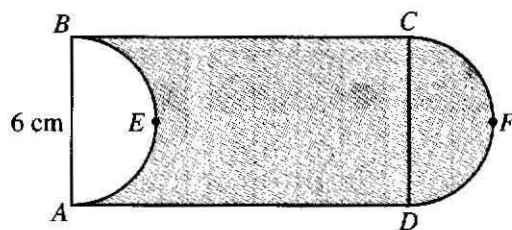
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ATTENDANCE AT LAST MONDAY'S
AEROBICS CLASSES

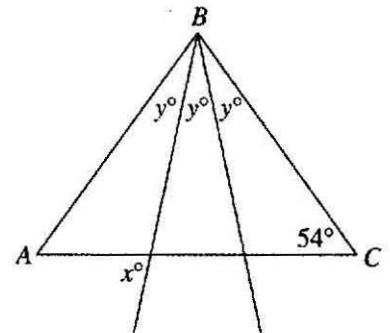
Class Time (A.M.)	Attendance
6:00	14
7:30	20
9:00	23
10:30	20
11:30	28

11. The table above shows the attendance at a health club's aerobics classes on Monday last week. The average (arithmetic mean) class attendance last Monday was 21. If the attendance at the 6:00 A.M. class next Monday increases by 5 and the attendance at the other classes remains the same, what will be the average attendance at next Monday's classes?



12. In the figure above, $ABCD$ is a rectangle with $BC = 2AB$. \overline{AB} and \overline{CD} are diameters of semicircles AEB and CFD . What is the area of the shaded region, in square centimeters?

13. In the xy -plane, the graph of $y = k(x - 1)^2$, which is a constant, passes through the point $(3, 10)$. What is the value of k ?



14. In triangle ABC above, $AB = BC$. What is the value of x ?



15. Carol has 5 scarves and 5 sweaters, and each scarf matches a different sweater. If she chooses one of these scarves and one of these sweaters at random, what is the probability that they will not match?

17. If $-1 < 2y < 0$, what is one possible value of $|y| - y$?

18. The integer n is equal to k^2 for some integer k . If n is divisible by 24 and by 10, what is the smallest possible positive value of n ?

$$3^{6x} = 81a^2$$

16. In the equation above, x is a positive integer and $a > 0$. If $27^x = ka$, what is the value of k ?

STOP

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



SECTION 7

Time — 25 minutes

24 Questions

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

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

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

Example:

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

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

(A) (B) (C) (D) ☒

1. Some ecosystems are more ----- than others, better able to withstand changes, while other ecosystems are more ----- and therefore susceptible to the slightest alteration.
 - (A) resilient . . vulnerable
 - (B) stagnant . . dependent
 - (C) fragile . . endangered
 - (D) specialized . . fluid
 - (E) robust . . ubiquitous
2. During decades of oppression, the people lost their will to resist and became -----, yielding readily to the government's demands.
 - (A) resolute (B) isolated (C) compliant
 - (D) cunning (E) fervid

3. Ryan's ----- bothered his friends, who tired of instability and constant changes of allegiance.

(A) blundering (B) exuberance (C) fickleness
(D) naïveté (E) cocksureness

4. Hypatia of Alexandria, a noted mathematician in Roman Egypt who also taught philosophy and astronomy, championed -----, deliberately ----- the mystical thinking and occult practices prevalent during her times.

(A) empiricism . . appropriating
(B) rationalism . . eschewing
(C) stoicism . . bolstering
(D) spiritualism . . subverting
(E) intellectualism . . inculcating

5. The mayor is renowned for her ----- temperament; she can be warm and talkative one moment, also supercilious the next.

(A) acrimonious (B) melancholy (C) mercurial
(D) beguiling (E) officious



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

Questions 6-9 are based on the following passages.

Passage 1

The realm of blogging and other user-generated Web content, like personal home pages, has a Wild West, anything-can-happen feel to it. A guy who has never written a children's book goes from blogging, to networking, to causing a stir, and ends up with a book deal. A couple of women who find their conversations about dating incredibly amusing turn out to be right, and end up with a television deal from a major cable channel. While it is growing and changing more rapidly than anyone can accurately track, the world of blogging is still a place where anyone can stand out, make a splash, be seen, be heard, and be successful.

Passage 2

A blog can seem like a waste of time to some, since there is no guarantee readers will come and comment. Maintaining it with new posts and an interesting layout can seem like a chore. Why does someone bother to create a blog if it isn't to peddle a product or to get in touch with consumers? "The principal reason to blog is because you have something to say," claims one expert on blogging. "While the cadre of readers may be small, it is not really how many sets of eyeballs are reading your material that's important, but who the eyeballs belong to. Blogs are written by influencers, and it is often other influencers that read them."

6. Unlike the author of Passage 1, the author of Passage 2 implies that keeping a blog might
 - (A) benefit the community
 - (B) require financial commitment
 - (C) involve irksome tasks
 - (D) attract favorable attention
 - (E) reward real creativity
7. The author of Passage 2 suggests that "some" (line 13) would most likely view the description in lines 10-12, Passage 1 ("the world . . . successful"), as
 - (A) surprisingly apt
 - (B) overly optimistic
 - (C) needlessly pedantic
 - (D) insufficiently detailed
 - (E) comically anachronistic
8. In response to the question of why a person might "bother to create a blog" (lines 16-17, Passage 2), the author of Passage 1 would most likely claim that blogging
 - (A) provides a chance to be noticed
 - (B) encourages vigorous debate
 - (C) promotes disciplined thinking
 - (D) eases feelings of solitude
 - (E) offers creative satisfaction
9. In the context of Passage 2, the quotation in lines 18-24 primarily serves to
 - (A) analyze a hypothesis
 - (B) account for a phenomenon
 - (C) advocate an action
 - (D) pose a question
 - (E) qualify a claim

Questions 10-15 are based on the following passage.

Published in 1986 by a prominent critic, the following passage is from an essay on modern literature and the arts.

Is there no way to recognize and reconcile the two undeniable extremes of art: its urgent, realistic depiction of human life and its retreat to a self-reflexive realm of language, forms, and ideas? I can answer only with a parable.
 Line 5 Many years ago when I lived in Texas I was struck by a type of side road fairly common along the highways of that state. Called "loop roads" and assigned a state number, these routes ran a few miles into the countryside, sometimes to a homestead or small community, and returned to the highway at the same point or a little farther on, thus forming a loop. They were neither dead ends nor connecting roads to another highway. By taking one of these loop roads you could explore the landscape, change your direction, break your journey, and perhaps discover an impressive outlook or
 10 landmark, knowing that you would return to your original path after the detour. I sensed even then that such roads would later furnish a compact analogy for something I could not yet identify.

A work of art or literature removes us temporarily from the regular path of our life and diverts us into a partly imaginary domain where we can encounter thoughts and feelings that would not have occurred to us on the highway. These side experiences differ from our daily lives. In literature they are made up of words—disembodied, intense, complex,
 25 wonderfully malleable, and convincing. These differences permit a literary work to probe disturbingly deep into potential relations among character, action, thought, and the natural world. We accept the differences and expect them to observe or exceed certain conventions of plausibility and exaggeration, usefulness and fantasy. At the same time we
 30 know that this detour of art will deliver us back before long into the track of our life, which may be changed or influenced in some manner by the side trip.

This loop analogy presents a work of art as a form of delay or relay along the path of living. Its processes are only temporarily autonomous; they turn off from and return to the realities of human existence. Humans have a great capacity for delayed response, for foresight based on hindsight. Artists and writers refine and develop this faculty by constantly
 40 rehearsing real and imaginary events in order somehow to get them right—in timing and tone. This process of pausing to reflect, of rehearsing (both before and after the fact) the consequences of our actions, has always inspired human artistic creativity. Art is free to try all the genres and modes
 45 it can imagine; some of them travel a long way from reality. Its responsibility is to return us to reality better prepared to continue our journey.

10. The tone of the passage might best be described

- (A) openly critical
- (B) conversational and whimsical
- (C) nostalgic and uncertain
- (D) personal and reflective
- (E) cautiously argumentative

11. Which statement best describes the "extremes of art" discussed in lines 1-4?

- (A) Art can represent either the external concrete world or the somewhat abstract world of itself.
- (B) Art can be seen as either realistic and human or overly self-conscious and decadent.
- (C) Art should not compromise its portrayal of reality by using complex language.
- (D) Art makes the mundane appear more aesthetically appealing.
- (E) Any representation of life depends on the artist's artistic means of expression.

12. As used in line 22, the "highway" represents

- (A) a short vacation
- (B) everyday experience
- (C) new information
- (D) an undiscovered path
- (E) an unplanned journey

13. As used in line 31, the idea of a "detour" represents

- (A) the fact that art can be a guide through life
- (B) the fact that art is intentionally misleading
- (C) the stylistic shift that inevitably occurs in a new field of art
- (D) a work of art as both entertaining and revealing
- (E) a work of art as different from everyday life



14. Which of the following best exemplifies the “great capacity” (line 37) that the author describes?

- (A) A famous pianist who also learns to play the violin and the oboe
- (B) A father who involves a group of rowdy children in building a sand castle on the beach
- (C) A political candidate who publishes her memoirs to gain public exposure
- (D) A painter who must adapt her style to popular taste to sell her work
- (E) A lawyer who examines the strategy used in a previous case to help prepare for a future case

15. The passage is best described as a

- (A) refutation of the notion that art resembles a loop
- (B) discussion of the place of art in life
- (C) criticism of several common ideas about art
- (D) reminiscence about the author’s travels in Texas
- (E) reflection on the human capacity for artistic creativity



Questions 16-24 are based on the following passage.

This passage, adapted from a novel, is set at the fictitious Hedermansever College during the 1950s. The narrator and his new roommate, Bobby Dove, eventually become friends.

Line Tim and I had an argument and he went to live in
another room, with consent of the dorm-master. When
he left I went about being wanton. I took my mattress
5 off the bed frame and slept with it on the floor. My
phonograph was always wailing. I brushed my teeth
once a day. On the back of my door was a picture of
jazz great Maynard Ferguson, with his trumpet and
wearing a purple sweater. Out of his mouth I had drawn
a speech balloon enclosing the word "Practice!" All this
10 is what passed for being a beatnik¹ at Hedermansever.
I'd already been thrown out of the student center twice for
playing jazz with a few musical acquaintances. We drew
a crowd of kids itching to dance, but the student dean
came in to tell us loud dance music wasn't the right thing
15 at Hedermansever. This man held an office and received
a salary for such services. He showed up on such occasions
as involved clandestine pleasure; showed up, a raving, red-
faced symptom, wherever joy became too unconfined—
in his natty orlon shirt and loafers and his Ivy League
20 crew cut and his failing youth, just one of the boys.

Two weeks went by before they threw in Bobby Dove
to live with me. He took almost a week to truck in all
the books and machinery that went along with him. His
correct whole name was Robert Dove Fleece. He hadn't
25 made it with his roomie either. One thing I could see: he
dragged in so much clutter that there wasn't really room
for anybody else to live with him. Fleece said little to me
the first week. Then one afternoon I walked in on him
and he broke open.

30 "You're some counselor they've hired to live with
me, aren't you?" I had interrupted his reading at the long
plywood table he had for a desk.

"No. I'm not. I'm in music."

"Are you a genius?" Fleece asked me.

35 "No. I've never considered being a gen—"

"Just going to clog up the field of music, are you?"

I understand, I guess. I'd hoped we'd have some ideas
transpiring around the room. I *am* a genius. I'm going
to bring something forth, my brains are going to *come up*
40 *with something*." He caught me staring at him. "All right,
rube², stare at me. I'm not Mister Muscle. Want to see me
look like a puppet?" He stood up and formed himself into
a slump which made him look exactly like a pale mario-
nette out of work and hanging. Even sitting back down
45 to his chair, he seemed to be worked from above by some
cynical puppeteer. "Did you notice that huge forehead I've

got, though?" He tapped it. Then he put his little finger in
one ear and hooked it upwards lovingly: "Brains up there,"
he said.

50 "I've got ideas. I don't mean I don't have any ideas,"
I defended myself. "There is a lot of idea in music, you
know. When I play the trumpet, for example—"

"No, I'm afraid that music is not idea. Music is instinct
dignified by instruments or voice. Music is howling in tune.
55 The guts come first, and there is no disinterestedness,
as in actual idea."

"What would that be like?"

"Idea? An idea is something which exists already and
does not care whether you like it or not. You probably
60 haven't had any ideas, rube, not fonking away on a horn.
Sorry. I have ideas, I live at the top of my brain. You look
like somebody who's looking out his navel. Oh ho! You
want to get me, don't you? You peer meanly at me! Oh yes,
attack! Thinking I look like a limp dry pea-pod or the like,
65 aren't you? Some sort of fragile herb with hair on its arms.
Go ahead, have a blast at me. Easy stuff!"

"I wanted to get along," I said.

¹ a nonconformist

² an awkward, uncultivated person

16. Fleece behaves toward the narrator in a manner
best described as

- (A) amiable
- (B) urbane
- (C) eccentric
- (D) apathetic
- (E) discreet

17. In line 12, "drew" most nearly means

- (A) extracted
- (B) represented
- (C) lengthened
- (D) attracted
- (E) formulated

18. In line 14, "right" most nearly means

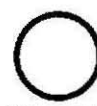
- (A) proper
- (B) genuine
- (C) accurate
- (D) honest
- (E) just



19. Lines 15-20 ("This man . . . boys") primarily suggest that the student dean is a
- (A) skeptic
 - (B) killjoy
 - (C) figurehead
 - (D) puppet
 - (E) braggart
20. Fleece's question in lines 46-47 ("Did . . . though?") reflects his feelings of
- (A) pride
 - (B) compassion
 - (C) disillusionment
 - (D) uncertainty
 - (E) regret
21. In lines 55-59 ("The guts . . . not"), Fleece argues that ideas
- (A) presuppose an element of creativity
 - (B) are independent of human consciousness
 - (C) arise out of diligent application
 - (D) can be grasped instinctively
 - (E) are often complex in nature
22. In lines 59-62 ("You . . . navel"), Fleece's words are best characterized as a
- (A) pun
 - (B) taunt
 - (C) rebuttal
 - (D) parody
 - (E) digression
23. The passage as a whole suggests that Fleece's state of mind in lines 62-66 ("Oh . . . stuff!") is best described as
- (A) somber
 - (B) ambivalent
 - (C) depressed
 - (D) bewildered
 - (E) paranoid
24. The narrator's final remark primarily expresses a sense of
- (A) disappointment
 - (B) dedication
 - (C) repentance
 - (D) confidence
 - (E) malice

STOP

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



SECTION 8

Time — 20 minutes

19 Questions

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

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

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

Example:

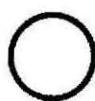
Hoping to ----- the dispute, negotiators proposed a compromise that they felt would be ----- to both labor and management.

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

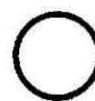
(A) (B) (C) (D) (E)

1. The proposed research projects were praised as both ----- and -----: they were inexpensive yet promised to break new ground.
 - (A) affordable . . redundant
 - (B) pointless . . revolutionary
 - (C) economical . . innovative
 - (D) suspect . . efficient
 - (E) worthwhile . . disturbing
2. As health care and nutrition continue to improve, Americans on average are enjoying increased -----, living to a more advanced age than ever before.
 - (A) equanimity (B) proximity (C) veracity
 - (D) longevity (E) ubiquity
3. The speaker ----- frequently, but these tangents were the most entertaining parts of the presentation.
 - (A) deliberated (B) gestured (C) exclaimed
 - (D) paused (E) digressed
4. Although she often described reason as the noblest -----, author Ayn Rand never implied that she rejected -----.
 - (A) enigma . . logic
 - (B) faculty . . emotion
 - (C) fantasy . . rhetoric
 - (D) good . . rationality
 - (E) honor . . semantics
5. The governor concluded that, because the city's fiscal problems were ----- by entrenched mismanagement, providing rescue funding would be foolhardy.
 - (A) supplanted (B) mitigated (C) ascertained
 - (D) exacerbated (E) assailed
6. Using fiber optics to deliver information initially seemed a ----- field of research, hard to understand by nonspecialists.
 - (A) substantive (B) fallacious (C) recondite
 - (D) pragmatic (E) hackneyed

8



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8

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

Questions 7-19 are based on the following passage.

The following is adapted from the introduction to a 2003 biography of civil rights activist Ella Baker (1903–1986).

Ella Josephine Baker's activist career spanned from 1930 to 1980, touched thousands of lives, and contributed to over three dozen organizations. Baker spent her entire adult life trying to change a system that excluded poor and oppressed people. Somewhere along the way she recognized that her goal was not a single "end" but rather an ongoing "means."

In 1969, Baker argued that

we are going to have to learn to think in radical terms. I use the term radical in its original meaning—getting down to and understanding the root cause. It means facing a system that does not lend itself to your needs and devising means by which you can change that system.

Radical change for Baker was about a protracted process of debate, consensus, and struggle. If larger numbers of communities were engaged in such a process, she reasoned, day in and day out, year after year, the revolution would be well under way. Baker understood that laws, structures, and institutions had to change in order to correct injustice, but part of the process had to involve oppressed people, ordinary people, infusing new meanings into the concept of democracy and finding their own power to determine their lives and shape the direction of history. Just as the "end" for her was not a scripted utopia but another phase of struggle, the "means" of getting there was not scripted either. Baker's theory of social change and political organizing was inscribed in her practice. Her ideas were written in her work: a coherent body of lived text spanning nearly 60 years.

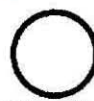
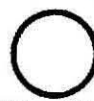
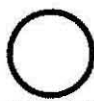
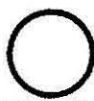
Biography is a profoundly personal genre of historical scholarship, and the humbling but empowering process of finding our own meanings in another person's life poses unique challenges. As biographers, we ask questions about lives that the subjects themselves may never have asked outright and certainly did not consciously answer. Answers are always elusive. We search for them by carefully reading and interpreting fragmented messages left behind. Feminist biographers and scholar-activists like me face particular challenges. It is imperative that we be very cautious of the danger inherent in our work: imposing our contemporary dilemmas and expectations on a generation of women who spoke a different language, moved at a different rhythm, and juggled a different set of issues and concerns. The task of tailoring a life to fit a neat and cohesive narrative is a

daunting one: an awkward and sometimes uncomfortable process of wading barefoot into the still and often murky waters of someone else's life, interrogating her choices, speculating about her motives, mapping her movements, and weighing her every word. How can a biographer frame a unique life, rendering it full-bodied, textured, even contradictory, yet still accessible for those who want to step inside and look around?

My journey into Ella Baker's world has been a personal, political, and intellectual journey, often joyous and at times painful. In the process, I have revisited the faces, experiences, and southern roots of my own mother, father, grandparents, aunts, uncles, and cousins: Mississippi sharecroppers, domestic and factory workers, honest, generous, hardworking, resilient Black people. Most importantly, I have developed an intense and unique relationship with my subject. I have chatted, argued, commiserated, and rejoiced with Ella Baker in an ongoing conversation between sisters, one living and one dead.

There are those who insist that biographical writing is compromised and tainted by an author's identification and closeness with her subject. This does not have to be the case. I do not apologize for my admiration for Baker. She earned it. I admire her for the courageous and remarkable life she led and for the contributions she made without any promise of immediate reward. I admire her for the ways in which she redefined the meaning of radical and engaged intellectual work, of cross-class and interracial organizing, and of a democratic and humanistic way of being in the world, all the while trying to mold the world around her into something better.

I first came upon Baker's story through my search for political role models, not research subjects. I was drawn to the example of Ella Baker as a woman who fought militantly but democratically for a better world and who fought simultaneously for her own right to play more than a circumscribed role in that world. So, my first connection to Ella Baker was a political one. This connection has enhanced rather than lessened my desire to be thorough and balanced in my treatment of her life and ideas. There is more at stake in exploring her story than an interesting intellectual exercise or even the worthy act of writing a corrective history that adds a previously muted, Black, female voice to the chorus of people from the past. To understand Baker's weaknesses as well as her strengths, her failures as well as her triumphs, her confusion as well as her clarity is to pay her the greatest honor I can imagine.



7. The passage most extensively discusses Baker's
 - (A) writings
 - (B) personality
 - (C) family background
 - (D) political philosophy
 - (E) view of history
8. The primary purpose of the first paragraph (lines 1-7) is to
 - (A) lament the obscurity of a scholar
 - (B) highlight a controversial career
 - (C) propose a line of argument
 - (D) challenge a leader's reputation
 - (E) introduce an influential figure
9. Lines 9-15 ("we . . . system") serve primarily to
 - (A) criticize an opposing view
 - (B) call for an alternative approach
 - (C) offer a hypothetical proposal
 - (D) dispute a popular misconception
 - (E) acknowledge a potential objection
10. According to lines 16-25 ("Radical . . . history"), Baker thought that positive social change would come about only if
 - (A) charismatic leaders inspired politicians to act
 - (B) publicized injustices provoked widespread outrage
 - (C) marginalized people took part in political activity
 - (D) economic conditions made such change desirable
 - (E) historical examples emboldened contemporary activists
11. In lines 37-39 ("Answers . . . behind"), the role of the biographer is presented in terms that most closely evoke the activity of
 - (A) a surgeon
 - (B) a spy
 - (C) a gambler
 - (D) an artist
 - (E) an archaeologist
12. Lines 41-45 ("It is . . . concerns") primarily serve as an example of which of the following?
 - (A) Self-admonition
 - (B) Rousing oratory
 - (C) Brainstorming
 - (D) Understatement
 - (E) Digression
13. In line 46, "tailoring" most nearly means
 - (A) embellishing
 - (B) measuring
 - (C) shaping
 - (D) delving into
 - (E) taking in
14. The imagery in lines 48-49 ("wading . . . life") evokes primarily which experience?
 - (A) The luxurious sensation of inhabiting the past
 - (B) The exhilaration of conquering a challenge
 - (C) Humility in the presence of a great personage
 - (D) Apprehensiveness in confronting the unknown
 - (E) Anxiety over whether one's work will achieve acclaim
15. In line 51, "weighing" most nearly means
 - (A) apportioning
 - (B) burdening
 - (C) counting
 - (D) considering carefully
 - (E) ascertaining the heaviness of
16. In lines 66-70 ("There . . . it"), the author claims to be
 - (A) full of charity
 - (B) lacking discipline
 - (C) without regret
 - (D) envious
 - (E) overjoyed
17. In the final paragraph, the author suggests that she became interested in Baker initially because
 - (A) she possesses political values and goals similar to Baker's
 - (B) she enjoys the challenge of telling the stories of complex lives
 - (C) other Baker biographies were not comprehensive enough
 - (D) Baker had urged her to take on the project as a political act
 - (E) Baker's autobiographical writings needed to be updated and expanded

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8

18. In line 86, "treatment" most nearly means

- (A) execution
- (B) proposal
- (C) practice
- (D) management
- (E) handling

19. The author indicates in lines 86-93 ("There ... imagine") that she is ultimately most concerned with conveying which aspect of Baker?

- (A) Her political activism
- (B) Her human complexity
- (C) Her fierce tenacity
- (D) Her carefree nature
- (E) Her remarkable candor

STOP

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

SECTION 9

Time — 20 minutes

16 Questions

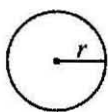
Turn to Section 9 (page 7) of your answer sheet to answer the questions in this section.

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

Notes

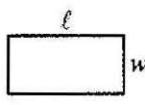
1. The use of a calculator is permitted.
2. All numbers used are real numbers.
3. Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that the figure is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

Reference Information

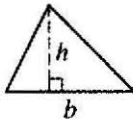


$$A = \pi r^2$$

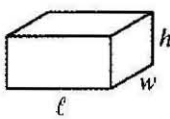
$$C = 2\pi r$$



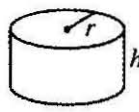
$$A = \ell w$$



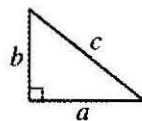
$$A = \frac{1}{2}bh$$



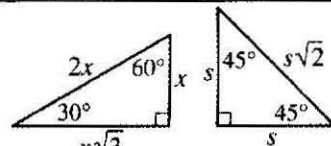
$$V = \ell wh$$



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



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



Special Right Triangles

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

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

13, 9, 5, ...

1. The first term of the sequence above is 13. Each term after the first is 4 less than the previous term. What is the first negative number in the sequence?

- (A) -1
(B) -3
(C) -4
(D) -7
(E) -8

2. If $2x + 1 = 3$, what is the value of $4x - 1$?

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

GO ON TO THE NEXT PAGE



5, x , y , z

3. If the sum of the 4 numbers listed above is 35, what is the average (arithmetic mean) of x , y , and z ?

(A) 5
(B) 10
(C) 15
(D) 20
(E) 30

4. The cost of 48 pencils is d dollars. At this rate, what is the cost, in dollars, of 480 pencils?

(A) $\frac{d}{10}$
(B) $\frac{10}{d}$
(C) $10d$
(D) $\frac{48}{d}$
(E) $48d$

5. If $r(t + u) = rt + w$, which of the following must be true?

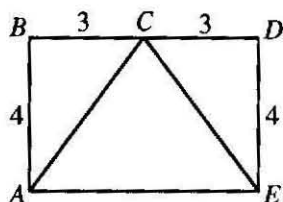
(A) $ru = rw$
(B) $ru = tw$
(C) $rt = ru$
(D) $rt = w$
(E) $ru = w$

GO ON TO THE NEXT PAGE 

x	$f(x)$	$g(x)$	$h(x)$
0	-1	10	11
1	3	2	5
2	5	7	-2
3	15	-11	3
4	-5	0	-4

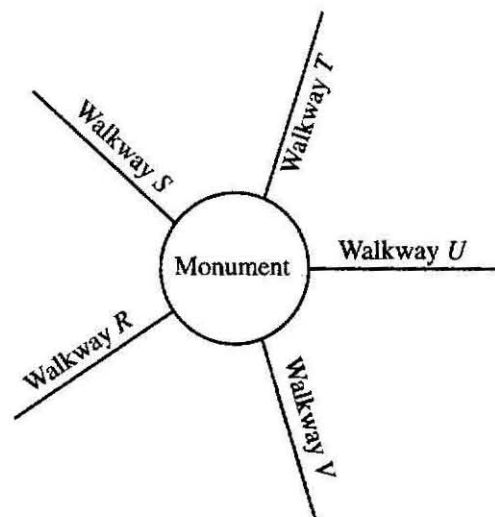
6. The table above gives some values of the functions f , g , and h . At which of the following values of x does $f(x) + h(x) = g(x)$?

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



7. In the figure above, $ABDE$ is a rectangle. What is the perimeter of $\triangle ACE$?

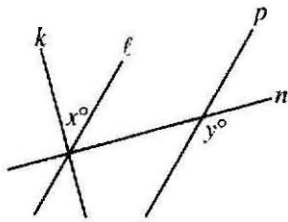
(A) 11
(B) 12
(C) 14
(D) 16
(E) 20



8. The figure above shows 5 walkways, R , S , T , U , and V , leading to and from a monument. Carlos will take one walkway to the monument and will leave by a different walkway. From how many different pairs of these walkways can Carlos choose? (For example, the pair starting with walkway S and ending with walkway V is different from the pair starting with walkway V and ending with walkway S .)

(A) 10
(B) 20
(C) 25
(D) 32
(E) 50

GO ON TO THE NEXT PAGE



Note: Figure not drawn to scale.

9. In the figure above, lines k and n are perpendicular and lines ℓ and p are parallel. If $x = 40$, what is the value of y ?

(A) 80
(B) 100
(C) 110
(D) 130
(E) 140

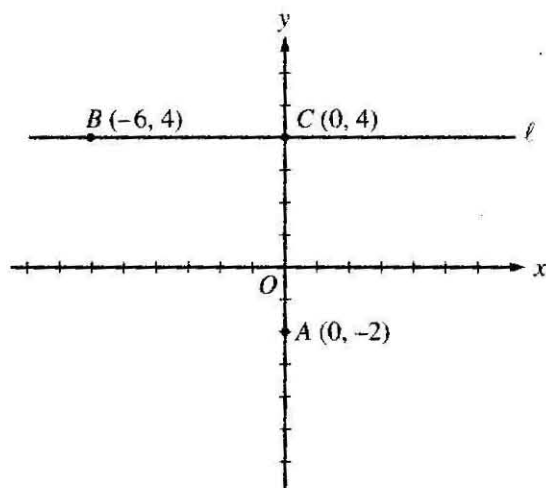
10. In a school election, Kevin, Marissa, and Joe were the only three candidates. Together the three candidates received a total of 348 votes. The combined number of votes that Kevin and Marissa received was 3 times the number of votes that Joe received. How many votes did Joe receive?

(A) 85
(B) 87
(C) 91
(D) 98
(E) 116

11. If x is an even integer, which of the following must be an odd integer?

I. $\frac{1}{2}x$
II. $2x$
III. $3x$
(A) None
(B) I only
(C) II only
(D) III only
(E) I and III

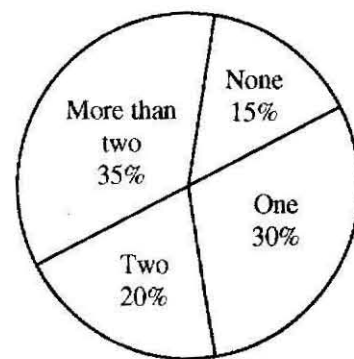
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12. In the xy -plane above, point D (not shown) lies on line ℓ . If the slope of \overline{AD} is $-\frac{2}{3}$, what is the length of \overline{BD} ?

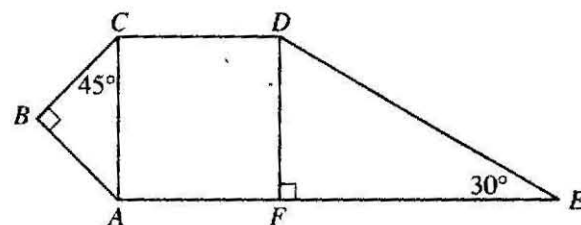
(A) 2
(B) 3
(C) 9
(D) 10
(E) 15

NUMBER OF PETS OF 4TH GRADERS



13. The circle graph above shows the percent of 4th graders at an elementary school who have the indicated numbers of pets in their homes. If 68 of the 4th graders have at least one pet, how many have exactly two pets?

(A) 16
(B) 17
(C) 20
(D) 33
(E) 34



14. In the figure above, $ACDF$ is a square, the area of $\triangle ABC$ is 12, and the length of segment \overline{DE} is $8\sqrt{3}$. What is the length of segment \overline{FE} ?

(A) 10
(B) 12
(C) 14
(D) 16
(E) 18

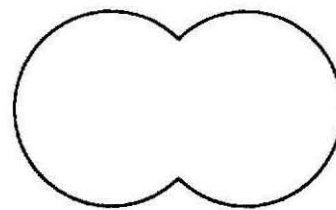
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$$C(x) = \frac{10x}{101 - x}$$

15. The function C above models the cost, in millions of dollars, of removing x percent of a certain pollutant from a region. If \$80 million is to be spent on the removal, what percent of the pollutant, to the nearest whole percent, will be removed?

(A) 90%
(B) 78%
(C) 60%
(D) 45%
(E) 38%



16. The figure above is made up of two identical 270-degree arcs. Each arc is part of a circle of radius 8. What is the area of the figure?

(A) 96π
(B) 128π
(C) $48\pi + 64$
(D) $96\pi + 32$
(E) $96\pi + 64$

STOP

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



SECTION 10

Time — 10 minutes

14 Questions

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

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

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

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

EXAMPLE:

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

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

A ● C D E

1. In 1911 the Great Blue Norther, a massive storm in the midwestern United States, it caused temperatures in some cities to drop more than 60 degrees in a single day.

- (A) it caused
- (B) caused
- (C) causing
- (D) which caused
- (E) having caused

2. The Galápagos Islands originated when sections of Earth's crust passed over volcanic hot spots, molten lava erupted through those sections, and the lava has cooled to form new landmasses.

- (A) has cooled to form
- (B) will cool, forming
- (C) cooled to form
- (D) cools and forms
- (E) cools, forming

3. Playing an instrument such as the violin or the piano is a complex activity, it involves the use of several different parts of the brain.

- (A) activity, it involves
- (B) activity, with it involving
- (C) activity, which it involves
- (D) activity that involves
- (E) activity and involving

4. The final match of the 2006 FIFA World Cup was the most widely viewed sporting event of that year, with an estimated television audience of 715.1 million people worldwide.

- (A) with an estimated television audience of 715.1 million people
- (B) the estimated television audience was 715.1 million people
- (C) it was watched by an estimated television audience of 715.1 million people
- (D) and they estimated that 715.1 million people watched it on television
- (E) when an estimated 715.1 million people watching on television

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5. The ballet company's directors turned down Smith's offer of a huge donation because Smith wanted to control the company not only financially but also will be a decision maker in artistic matters.
 - (A) to control the company not only financially but also will be a decision maker in artistic matters
 - (B) controlling the company financially but also be an artistic decision maker
 - (C) control of the company not only in financial matters and also artistic
 - (D) financial control of the company as well as artistically
 - (E) not only financial but also artistic control of the company
6. Forgetting to substitute American for British spellings when the editor edited the article, the word "realise" was not changed to "realize."
 - (A) Forgetting to substitute American for British spellings when the editor edited the article
 - (B) Because the editor of the article forgot to substitute American for British spellings
 - (C) Because of forgetting to substitute American for British spellings when editing the article
 - (D) To forget to substitute American for British spellings when editing the article
 - (E) Having forgotten to substitute American for British spellings when editing the article
7. In 1933 a group of film actors founded the Screen Actors Guild, a labor union that negotiates fair contracts for actors, in addition protects their legal rights.
 - (A) actors, in addition protects
 - (B) actors, it also protects
 - (C) actors and to protect
 - (D) actors and protects
 - (E) actors; which protects
8. Whereas today's censuses estimate the total population of a region, in ancient times it was conducted for other purposes, such as identifying who should pay taxes.
 - (A) in ancient times it was conducted
 - (B) but in ancient times they were conducted
 - (C) conducting censuses was done in ancient times
 - (D) censuses in ancient times were conducted
 - (E) censuses conducted in ancient times
9. A wiki is a Web site that uses simple software designed to allow the site's content be altered or changed by anyone who has access.
 - (A) be altered or changed
 - (B) to be altered or be changed
 - (C) to be altered
 - (D) be changed
 - (E) being changed
10. Despite their many differences in size and appearance, but every domestic dog breed belongs to the same species and are extremely similar in genetic makeup.
 - (A) but every domestic dog breed belongs
 - (B) but all domestic dog breeds belong
 - (C) every domestic dog breed belongs
 - (D) all domestic dog breeds belong
 - (E) domestic dog breeds all belonging

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11. The largest city public library in the United States, the New York Public Library contains over 10 million books and 10 million manuscripts.
- (A) States, the New York Public Library contains
 - (B) States, it is the New York Public Library that contains
 - (C) States, contained in the New York Public Library is
 - (D) States is the New York Public Library, contained in it there is
 - (E) States that is the New York Public Library; it contains
12. Though the communications company offers high-speed Internet service, they charge exorbitant rates, and customers complain about long delays for technical support.
- (A) they charge exorbitant rates
 - (B) they charge rates that are exorbitant
 - (C) exorbitant rates are charged by them
 - (D) the rates it charges being exorbitant
 - (E) it charges exorbitant rates
13. Originally built as a church, later converted to a mosque, and now used as a museum, Hagia Sophia, in Istanbul, Turkey, is one of the greatest surviving examples of Byzantine architecture.
- (A) later converted to a mosque, and
 - (B) later converted to a mosque and is
 - (C) was later converted to a mosque, and
 - (D) was later converted to a mosque and is
 - (E) it was later converted to a mosque and is
14. Having lived in Paris for six years, Martha's fluency in French is not surprising.
- (A) Martha's fluency in French is not surprising
 - (B) Martha's being fluent in French is not surprising
 - (C) Martha's French is, not surprisingly, fluent
 - (D) Martha, whose fluency in French is not surprising
 - (E) Martha is, not surprisingly, fluent in French

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.

