PRACTICE TEST *5*

ANSWER SHEET

Last Name: _____ First Name: _____

Date: _____ Testing Location: _____

Administering the Test

- **Remove this answer sheet** from the book and use it to record your answers to this test.
- This test will require **2 hours and 10 minutes** to complete. Take this test in one sitting.
- Use a stopwatch to time yourself on each section. The time limit for each section is written clearly at the beginning of each section. The first four sections are 25 minutes long, and the last section is 30 minutes long.
- Each response must **completely fill the oval**. **Erase all stray marks completely**, or they may be interpreted as responses.
- **You must stop ALL work on a section when time is called.**
- If you finish a section before the time has elapsed, check your work on that section. **You may NOT move on to the next section until time is called.**
- Do not waste time on questions that seem too difficult for you.
- Use the test book for scratchwork, but you will only receive credit for answers that are marked on the answer sheets.

Scoring the Test

- Your scaled score, which will be determined from a conversion table, is based on your raw score for each section.
- You will receive one point toward your raw score for every correct answer.
- You will receive no points toward your raw score for an omitted question.
- For each wrong answer on a multiple-choice question, your raw score will be reduced by 1/4 point. For each wrong answer on a numerical "grid-in" question (Section 4, questions 29–38), your raw score will receive no deduction.

SECTION 1
Critical Reading
25 minutes

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

Time: 25 minutes
Start: _____
Stop: _____

SECTION 2
Math
25 minutes

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

Time: 25 minutes
Start: _____
Stop: _____

SECTION 3
Critical Reading
25 minutes

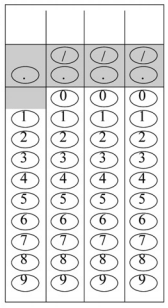
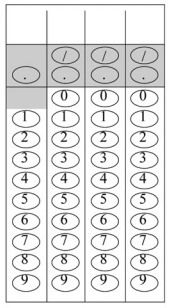
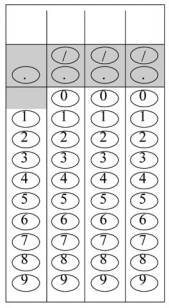
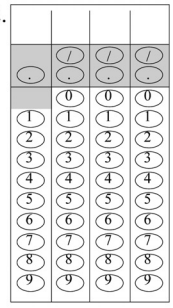
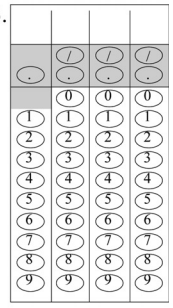
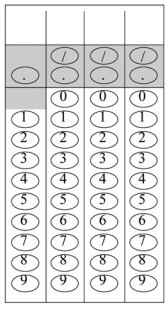
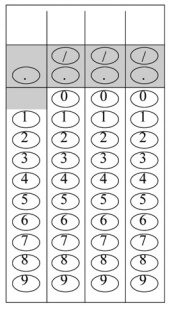
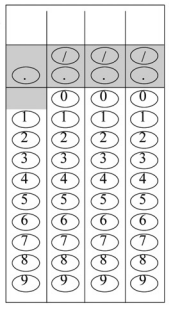
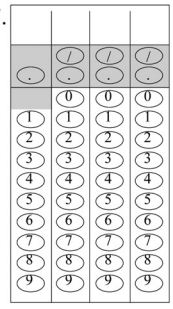
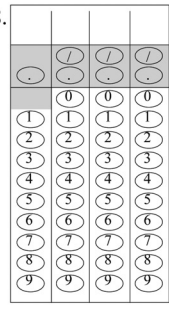
25. (A) (B) (C) (D) (E)	33. (A) (B) (C) (D) (E)	41. (A) (B) (C) (D) (E)
26. (A) (B) (C) (D) (E)	34. (A) (B) (C) (D) (E)	42. (A) (B) (C) (D) (E)
27. (A) (B) (C) (D) (E)	35. (A) (B) (C) (D) (E)	43. (A) (B) (C) (D) (E)
28. (A) (B) (C) (D) (E)	36. (A) (B) (C) (D) (E)	44. (A) (B) (C) (D) (E)
29. (A) (B) (C) (D) (E)	37. (A) (B) (C) (D) (E)	45. (A) (B) (C) (D) (E)
30. (A) (B) (C) (D) (E)	38. (A) (B) (C) (D) (E)	46. (A) (B) (C) (D) (E)
31. (A) (B) (C) (D) (E)	39. (A) (B) (C) (D) (E)	47. (A) (B) (C) (D) (E)
32. (A) (B) (C) (D) (E)	40. (A) (B) (C) (D) (E)	48. (A) (B) (C) (D) (E)

Time: 25 minutes
Start: _____
Stop: _____

SECTION 4
Math
25 minutes

21. (A) (B) (C) (D) (E)
22. (A) (B) (C) (D) (E)
23. (A) (B) (C) (D) (E)
24. (A) (B) (C) (D) (E)
25. (A) (B) (C) (D) (E)
26. (A) (B) (C) (D) (E)
27. (A) (B) (C) (D) (E)
28. (A) (B) (C) (D) (E)

Time: 25 minutes
Start: _____
Stop: _____

29. 
30. 
31. 
32. 
33. 
34. 
35. 
36. 
37. 
38. 

SECTION 5
Writing Skills
30 minutes

1. (A) (B) (C) (D) (E)
2. (A) (B) (C) (D) (E)
3. (A) (B) (C) (D) (E)
4. (A) (B) (C) (D) (E)
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37. (A) (B) (C) (D) (E)
38. (A) (B) (C) (D) (E)
39. (A) (B) (C) (D) (E)

Time: 30 minutes
Start: _____
Stop: _____

Section 1

Time—25 minutes
24 Questions (1–24)

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:

Medieval kingdoms did not become constitutional republics overnight; on the contrary, the change was ------.

(A) unpopular
(B) unexpected
(C) advantageous
(D) sufficient
(E) gradual

Correct response: (E)

1 Sanzianna's ------ that something awful had happened to her mother proved to be ------; her mother did not answer the phone for three days because the battery in her phone had run out.

(A) disbelief . . incorrect
(B) intuition . . accurate
(C) obsession . . authentic
(D) denial . . interesting
(E) premonition . . false

2 Grace was not surprised to find out that Lydia waited until the last possible moment to turn in her term paper; Lydia had always been one to ------.

(A) procrastinate
(B) pontificate
(C) meddle
(D) articulate
(E) testify

3 Originally designed as a medicine to assist in the ------ of elevated blood pressure, Minoxidil was found to have the ------ effect of increasing hair growth and revolutionized the science of hair replacement.

(A) eradication . . anticipated
(B) magnification . . adjunct
(C) mitigation . . unforeseen
(D) modernization . . extraneous
(E) enhancement . . supercilious

4 Behavioral psychologists suggest that the whining, kicking, screaming, and hitting that accompany a temper tantrum are ------ displays that are a normal part of a child's development.

(A) meticulous
(B) callous
(C) somber
(D) histrionic
(E) wistful

5 In the wild, the dominance hierarchy among members of a chimpanzee group can be ------ determined through the tracking of agonistic behaviors such as ------, an action by which a higher-ranked individual takes the spot of another, often at a preferred feeding source.

(A) definitively . . transmutation
(B) empirically . . supplanting
(C) ambiguously . . exhortation
(D) nefariously . . benediction
(E) incontrovertibly . . jurisdiction

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I

The passages below are followed by questions based on their content or the relationship between the passages. Answer the questions on the basis of what is stated or implied in the passages or the introductory material preceding them.

Questions 6–9 are based on the following passages.

Passage 1

Line Pavlov discovered that dogs would salivate not only when food was placed in their mouths, but also when they simply saw the person who was to feed them. His student, Anton Snarsky, sought to attribute this fact to the higher mental abilities of the dogs, namely their thoughts, feelings and desires. Pavlov rejected completely any such "mentalistic" interpretation. He believed that physiology alone, without the help of psychology or an appeal to "consciousness," could explain this Pavlovian conditioning. In Pavlov's view, the temporary association between the visual stimulus of the feeder and the salivary response was simply a modification of a low-level reflex.

Passage 2

Pavlov realized that the actions of the dog's salivary glands and the actions of the dog's stomach were both under the control of the autonomic nervous system, and hence probably linked by reflexes. In his investigations of this link, he discovered that the dogs did not need to taste, see, or even smell their food in order to begin salivating. They could be made to salivate by the sound of a metronome, which had previously only sounded when the food was about to be presented. In addition to showing that dogs could be taught, or "conditioned," to salivate in the presence of almost any associated stimulus, Pavlov also showed that this association is pliable, and can be repressed if the conditioned stimulus fails over an extended period. If the food stops coming when the metronome sounds, the salivation eventually stops also.

6 The two passages differ in emphasis primarily in that Passage 1 focuses on

(A) a theoretical dispute, while Passage 2 focuses on the nature of an investigation
(B) a broad historical setting, while Passage 2 focuses on a single person
(C) the positive aspects of a theory, while Passage 2 focuses on the negative aspects of the same theory
(D) the analysis of the scientific method in general, while Passage 2 focuses on a specific theory
(E) experimental equipment, while Passage 2 focuses on an experimental method

7 The quotation marks around the word "consciousness" (line 11) suggest that this term

(A) is usually stressed when spoken aloud
(B) is being adapted from another language
(C) is being used to mean the opposite of what it originally meant
(D) was coined by Pavlov
(E) was not held in high regard by Pavlov

8 Both passages indicate that

(A) conditioned responses are not necessarily permanent
(B) some scientists questioned Pavlov's theory of conditioning
(C) visual stimuli elicit a more powerful reaction in dogs than do auditory stimuli
(D) dogs are highly intelligent
(E) physiology is an aspect of psychology

9 As it is used in line 31, the word "fails" most nearly means

(A) is not measured with precise instruments
(B) ceases to be associated with food
(C) is not properly interpreted by the experimenter
(D) does not occur
(E) is not accepted by other scientists

The questions below are based on the content of the passage that precedes them. The questions are to be answered on the basis of what is stated or implied in the passage or the introductory material that precedes the passage.

Questions 10–17 are based on the following passage.

The following passage is an excerpt from a collection of works that describes various seafaring legends.

If you throw a stone into a pond, the pattern of ripples that is set up will be disturbed by any rocks that break the surface. If you also had a chart or photograph of all these ripples and a knowledge of mathematics, it would be possible to calculate the positions of all the rocks. Now substitute an ocean for the pond and islands for the rocks, and you can apply the same mathematical principles to pinpoint the location of an island 100 miles away. About three thousand years ago the ability to read the messages of the waves in this way allowed a race of master navigators to sail to, and colonize, almost every habitable island across the Pacific.

The Polynesians had no maps or sea charts to guide them, neither did they have compasses, sextants, or telescopes; there was not even a written language by which they could pass on the lessons of hard-won experience. Yet over a period of some thousand years they populated a huge triangular area covering more than 7 million square miles of ocean, from Easter Island in the east to Hawaii in the north and New Zealand in the south.

They achieved this incredible feat simply by means of intelligent observation. These seafarers had noticed that when waves hit an island some of them were reflected back in the direction from which they had come, while others were deflected, continuing on the other side of the island but in an altered form. By continued observation these people built up a vast store of knowledge about wave behavior so detailed that they could accurately judge, from the pattern of an island's reflected and deflected waves, its location 100 miles away.

When European sailors first encountered the strange interlocking web of bamboo sticks known as mattang, they thought it was a primitive type of map; but in fact these constructions were devices for teaching island boys the principles of wave motion. The mattang was so built that it demonstrated all the basic patterns that waves can assume; with its help a young navigator could learn and understand the implications of the many different wave formations that he might encounter.

Clearly, it was both an intricate art and an intimate one; the Polynesian sailor had to be so close to the waves that he could feel their motions through touch. He would go to the bow of his canoe, crouch down in the hull, and literally feel, with all of his body, every motion of the craft. Within minutes he would be able to determine the positions of the nearest island, any intervening reefs, and other islands nearby. A mattang intended for local use would show individual islands and groups, with particular islands being indicated by shells or pieces of coral fastened to the web of sticks.

Using these methods the Polynesians were able to explore most of the Pacific, yet where these people came from originally is a mystery, although Thor Heyerdahl strongly suggested that they owe their beginnings to successive migrations from the west coast of South America. Some three thousand years ago they passed through Fiji, settled in Tonga in Melanesia, and then moved on to Samoa. On an island that was far enough away from a mainland to be immune to disease the population would explode, so a group would sail off again; in this way the Marquesas were settled perhaps two thousand years ago.

From the Marquesas they made spectacular voyages to Easter Island, Hawaii, and New Zealand, covering these vast distances in huge dugout canoes lashed together in pairs with a deckhouse built on a platform between the two hulls. The interesting thing about these enormous migrations is that the Polynesians, spread out as they were across the world's largest ocean, still retained a sense of being a single people with a more or less common language, so that today it is possible for a Maori from New Zealand to make himself understood to another Polynesian in Hawaii.

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10 The first paragraph uses which of the following rhetorical devices?

(A) statistical inference
(B) debate
(C) personification
(D) analogy
(E) hyperbole

11 The author clearly considers "some thousand years" (line 21) to be

(A) a long time to develop a navigational technology
(B) a short time in which to achieve geographical dominance
(C) a long time to go without a written language
(D) a long period of economic prosperity
(E) a short time relative to the length of time a particular technology has been in use

12 It can be inferred that the "vast store of knowledge" (line 34) was primarily in the form of

(A) sea charts
(B) logs of previous voyages
(C) firsthand experience
(D) astronomical measurements
(E) written and oral legends

13 As described in the passage, the ability of Polynesian sailors to navigate is most similar to

(A) the ability of owls to see very small movements of their prey in very dim light
(B) the ability of snakes to detect their surroundings primarily through smell and taste
(C) the ability of cats to detect nearby moving objects with their whiskers
(D) the ability of dolphins to sense distant fixed objects by detecting sound waves that are reflected by those objects
(E) the ability of bees to locate food sources in terms of their relationship to the sun's position

14 By saying that the Polynesian art of navigation is an "intimate one" (line 51), the author means that it requires

(A) physical contact
(B) emotional commitment
(C) social cooperation
(D) mathematical calculation
(E) a familiarity with sea life

15 The reference to Thor Heyerdahl in line 66 is used primarily to infer information about the Polynesians'

(A) methods of navigation
(B) geographical knowledge
(C) history of migration
(D) susceptibility to disease
(E) relationships with their neighbors

16 The passage suggests that the Polynesians were motivated to spread throughout the Pacific primarily by the desire to

(A) avoid disease
(B) find new sources of food
(C) escape overpopulation
(D) spread their culture
(E) escape repression

17 As it is used in line 86, the word "common" most nearly means

(A) vulgar
(B) ordinary
(C) poor
(D) naïve
(E) mutual

The questions below are based on the content of the passage that precedes them. The questions are to be answered on the basis of what is stated or implied in the passage or the introductory material that precedes the passage.

Questions 18–24 are based on the following passage.

The following passage, written by a professional speechwriter, discusses the use of humor in speeches.

Humor is treacherous. It can charm, coax and persuade, but it can also distract, baffle or alienate the audience. All too often, jokes are added to a speech without the least regard to their relevance. No one would wedge a discussion of Byzantine art into a speech on health care. Yet, how many serious speeches begin with a warm-up of meaningless golf jokes?

Some speakers feel insecure, and they wish to ingratiate themselves with the audience. They hope that a few introductory jokes will win over the crowd. Of course, that depends if the humor is original and funny. Otherwise, the speaker will have more reason to be insecure. Humor is not a foolproof method of seduction.

Although we speechwriters are rumored to be ventriloquists, in fact, the dummy tells us what to write. If and when we are told to be funny, we must contend with three distinct challenges: the speaker, the audience and the topic. Our jokes must reflect the speaker's personality, background and affectations. I have written for a variety of characters and caricatures. One of my clients was born a chairman; his nickname at Yale was Adonis. Yet, this Episcopalian god liked self-deprecating humor; in one speech, he said, "In the corporate pyramid, I'm the mummy."

The humor must be tailored to the speaker, but it also should be compatible with the audience . . . Consider the composition and the character of your audience. Will your listeners find the humor in your remarks? There can be a fine line between humor and idiosyncracy, and it is easy to stray.

As speakers and writers, we also must consider if the topic is suitable for humor. Would humor emphasize your ideas or sabotage them? Even good jokes can be inappropriate. If the audience expects a serious speech, a humorous tone could belie your message and credibility. A boring accountant is more reassuring than a funny one. Indeed, the tactless joke or the flippant attitude can turn a speech into a suicide note.

History offers a famous example of that mistake. When on trial for impiety, Socrates ridiculed the ignorance and hypocrisy of his critics. Posterity admires his courage, but his audience did not. His defiance convicted him, and his mockery condemned him. Yes, Socrates was speaking the truth, but he might have chosen a more tactful manner of expressing it. One should never offend the audience, especially when it is a jury.

Having terrified you with the risks of humor, let me entice you with its rewards. Humor is the most irresistable form of communication. It has a contagious appeal that can win friends, arguments and elections. Can you recall a single joke by Walter Mondale or Michael Dukakis? Humor can be more than just a ploy for the audience's attention; it can be a sly but incisive expression of your ideas. Martin Luther certainly thought so. The founder of the Reformation was both a doctor of theology and a master of ridicule.

Luther could have expressed his beliefs in a scholarly Latin essay, but how many people would have understood it? The rebellious professor wanted the largest possible audience to know his opposition to the Church, so he wrote jokes in German. The humor was a broad and bawdy attack on the Church, and it delighted the public.

Luther used humor to convey and emphasize his ideas. His jokes were not irrelevant warm-ups for the sermon. They were integral to his text. Now, if humor can incite Reformation and a century of religious wars, think of how it can help you. Humor can illuminate and illustrate; it makes an insidiously good teacher.

Humor demands originality. A stale joke will sabotage the speaker and the speech. Your speaker will be unnerved by the silence of a failed joke, and the trite humor will squander the attention and patience of the audience. If you hope to get fresh jokes from newsletters and websites, so does everyone else. You should write your own humor. Does that seem a daunting challenge? It shouldn't. You have the advantage of living in an absurd world.

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Writing humor is a matter of observation. In an absurd world, the facts will speak for themselves and be self-incriminating. The speechwriter simply has to make the best use of the wry, the ironic and the ridiculous. So, a naked plumber walks into a bar… What happened next? It is a test of your talent and judgment on how to end the story and how best to use it. Does it belong in a speech, who should say it and to what audience? There are challenges and risks in humor, but there are also undeniable rewards. Humor can be your most effective means of communcation, and it certainly is the most enjoyable.

18 The reference to "Byzantine art" (line 6) is intended to emphasize the potential of humor to be

(A) beautiful
(B) obscure
(C) edifying
(D) noble
(E) complicated

19 The "dummy" (line 18) refers to

(A) an uneducated audience member
(B) an inarticulate speechwriter
(C) a good teacher of speechwriting
(D) the author of this passage
(E) the person giving a speech

20 Which of the following best summarizes the contrast between the author's characterization of his client in lines 25–26 and the client's characterization of himself?

(A) charismatic vs. humble
(B) assertive vs. cowardly
(C) humorless vs. intelligent
(D) articulate vs. bumbling
(E) personable vs. rude

50 *High Impact Speeches and Remarks*, John Kador.

21 The reference to Socrates in the sixth paragraph (lines 47–56) is intended to caution the reader against

(A) indiscretion
(B) failing to articulate a position clearly
(C) speaking in too sober a manner
(D) using overly technical language
(E) using self-deprecation

22 The author refers to Michael Dukakis in line 63 primarily because he

(A) employed professional speechwriters
(B) lost an election
(C) used humor to good effect
(D) wrote his own speeches
(E) overcame his fear of public speaking

23 The author suggests that "newsletters and websites" (lines 90–91) are

(A) good sources for fresh humor
(B) indicative of the absurdity in the world
(C) businesses in need of good writers
(D) overused as sources of humor
(E) vehicles of persuasion in the same way that speeches are

24 In saying that "the facts will speak for themselves" (lines 96–97) the author means that

(A) speechwriters should use statistics to bolster their claims
(B) real situations are often very humorous
(C) very few speechwriters know how to employ humor to proper effect
(D) using humor in a speech is a very risky proposition
(E) many historical figures have used humor as a persuasive tool

STOP

You may check your work, on this section only, until time is called.

Section 2

Time—25 minutes

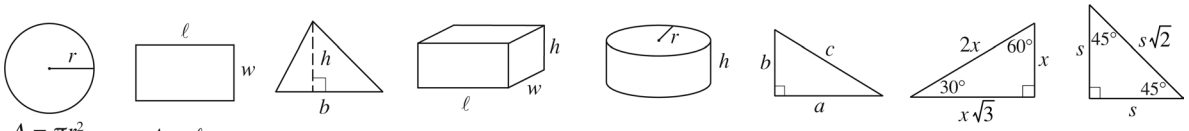
20 Questions

Directions for Multiple-Choice Questions

In this section, solve each problem, using any available space on the page for scratchwork. Then decide which is the best of the choices given and fill in the corresponding oval on the answer sheet.

- You may use a calculator on any problem. All numbers used are real numbers.
- Figures are drawn as accurately as possible EXCEPT when it is stated that the figure is not drawn to scale.
- All figures lie in a plane unless otherwise indicated.

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 arc of a circle measures 360°.
Every straight angle measures 180°.
The sum of the measures of the angles in a triangle is 180°.

1 If $5x = 10$ and $3y = 9$, what is the value of $x + y$?

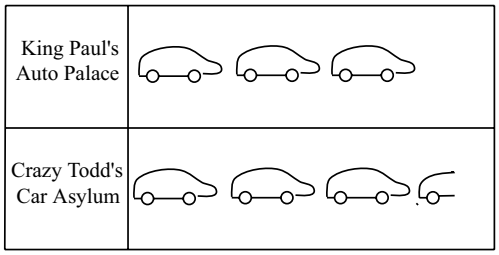
(A) 2
(B) 3
(C) 4
(D) 5
(E) 6

2 If six apples are needed to make an apple pie, how many dozen apples would be needed to make six pies? (1 dozen = 12 apples)

(A) 1
(B) 3
(C) 6
(D) 12
(E) 36

3

CAR SALES IN 2004

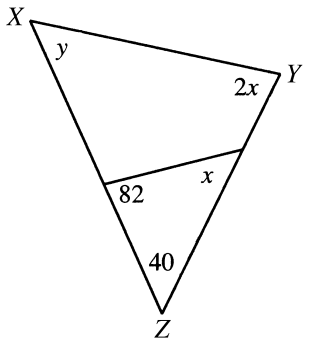


= 20 cars

In 2004, how many more cars were sold at Crazy Todd's Car Asylum than at King Paul's Auto Palace?

(A) 5
(B) 10
(C) 15
(D) 20
(E) 25

4



Note: Figure not drawn to scale.

In ΔXYZ above, what is the value of y?

(A) 24
(B) 28
(C) 48
(D) 72
(E) 78

5

Five more than one-third of a certain number is 3 less than the number. What is the number?

(A) 3
(B) $5\frac{1}{3}$
(C) 6
(D) $7\frac{2}{3}$
(E) 12

6

The third Thursday of a given 30-day month falls on the 15th. What is the date of the fourth Tuesday?

(A) 20th
(B) 21st
(C) 23rd
(D) 27th
(E) 28th

7

Which of the following CANNOT be the sum of three different prime numbers?

(A) 10
(B) 12
(C) 13
(D) 14
(E) 15

8

In a bowl of fruit there are 4 apples, 3 oranges, 5 bananas, 2 plums, and 6 peaches. What is the probability that a piece of fruit chosen at random from the bowl is <u>not</u> a peach?

(A) $\frac{3}{10}$
(B) $\frac{2}{5}$
(C) $\frac{1}{2}$
(D) $\frac{7}{10}$
(E) $\frac{8}{9}$

9

If $x^2 - 5x - 6 = 0$ and $x^2 - 2x - 3 = 0$, what is the value of x?

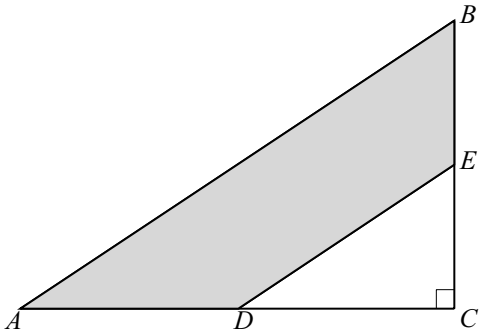
(A) -3
(B) -1
(C) 1
(D) 3
(E) 6

10

If $m = 4n+5$ and $p = 3n + 6$, which of the following expresses n in terms of m and p?

(A) $m + 2p - 3$
(B) $m - p + 1$
(C) $3m - 2p + 4$
(D) $4m + p + 1$
(E) $2m - 5p$

11



In the figure above, points D and E are the midpoints of two legs of right triangle ABC. If $AB = 10$ and $DC = 3$, what is the area of the shaded region?

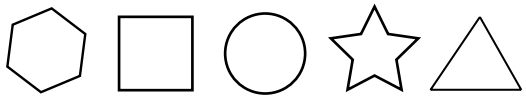
(A) 6
(B) 8
(C) 16
(D) 18
(E) 24

GO ON TO THE NEXT PAGE ▶▶▶

12 If $x^2 = 25$, $y^2 = 4$, and $(x+5)(y-2) \neq 0$, then $x^3 + y^3 =$

(A) -133
(B) -117
(C) 117
(D) 125
(E) 133

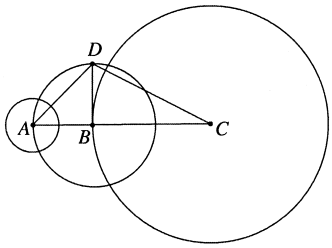
13



In how many ways can the five shapes above be arranged in a line if the triangle must be in the middle?

(A) 15
(B) 24
(C) 36
(D) 72
(E) 120

14



In the figure above, points A, B, and C are the centers of the three circles shown and $\overline{AC} \perp \overline{DB}$. The area of circle A is 9π. The radius of circle B is twice the radius of circle A and one-half the radius of circle C. What is the area of ΔACD?

(A) 18
(B) 36
(C) 54
(D) 72
(E) 108

15 If $w = \dfrac{5}{v}$, $v \neq 0$, and $w \neq 2$, in terms of w, which of the following is equal to $\dfrac{v-5}{\frac{1}{w-2}}$?

(A) $15w + 5w^2 - 10$

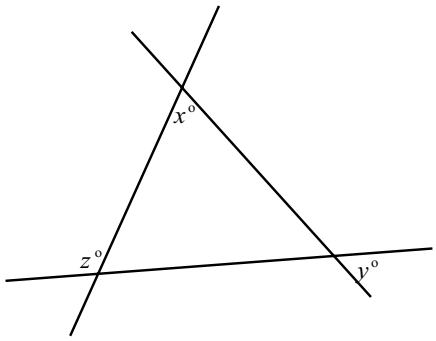
(B) $15 + 5w + \dfrac{10}{w^2}$

(C) $15 - 5w - \dfrac{10}{w}$

(D) $15w - 10w^2 + 5$

(E) $\dfrac{5w^2 + 15w - 10}{w}$

16



Note: Figure not drawn to scale.

In the figure above, what is the value of z in terms of x and y?

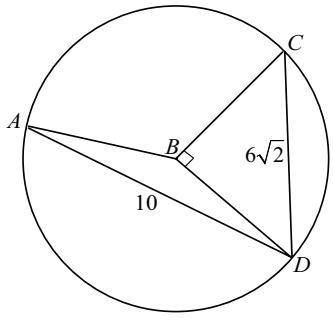
(A) $90 + x + y$
(B) $180 - x - y$
(C) $x - y$
(D) $90 - xy$
(E) $x + y$

17 Let the operation $\bullet$ be defined by the equation $a \bullet b = \dfrac{a^b}{a-b}$ for all numbers a and b, where $a \neq b$.

If $6 \bullet 2 = x \bullet 2$ and x is an odd integer, what is the value of x?

(A) 1
(B) 3
(C) 5
(D) 6
(E) 7

18



Note: Figure not drawn to scale.

In the figure above, B is the center of the circle, and points A, C, and D all lie on the circle. What is the perimeter of quadrilateral $ABCD$?

(A) $16 + 6\sqrt{2}$
(B) $16 + 12\sqrt{2}$
(C) $22 + 6\sqrt{2}$
(D) $22 + 12\sqrt{2}$
(E) $28 + 6\sqrt{2}$

GO ON TO THE NEXT PAGE ▸▸▸

19 Point Z is at the tip of the minute hand of a classroom clock, while point W is at the tip of the hour hand. The minute hand of the clock, which is 4 inches long, is twice as long as the hour hand. During the three hours from noon until 3 p.m., how much further does point Z travel than does point W?

(A) π
(B) 4π
(C) 15π
(D) 23π
(E) 24π

20 At the beginning of the month of January, a stock is worth d dollars per share. The value of the stock increases 5 percent per month for each of the first two months and 25 percent for the third month. During the fourth month, the value, per share, decreases by 20 percent. In terms of d, what is the value of the stock, per share, at the end of the fourth month?

(A) $0.98725d$
(B) $0.99225d$
(C) $1.1025d$
(D) $1.135d$
(E) $1.15d$

You may check your work, on this section only, until time is called.

Section 3

Time—25 minutes
24 Questions (25–48)

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:

Medieval kingdoms did not become constitutional republics overnight; on the contrary, the change was ------.

(A) unpopular
(B) unexpected
(C) advantageous
(D) sufficient
(E) gradual

Correct response: (E)

25 The argument that erupted between the two lawyers during the deposition was not ------; they have always ------ about how to handle such proceedings.

(A) normal . . disagreed
(B) unexpected . . conflicted
(C) anticipated . . wavered
(D) forbidden . . thought
(E) elaborate . . diverged

26 The tropical rainforest biome serves as host to the most ------ mix of life on the planet; it contains more species of animals and plants than can be found in all other ecosystems combined.

(A) succulent
(B) defiant
(C) forbidding
(D) diverse
(E) erratic

27 A woman should expect to gain between 25 and 35 pounds during her pregnancy; much of this growth can be ------ the increase in blood volume required to feed the baby.

(A) debilitated by
(B) attributed to
(C) ameliorated by
(D) contrasted with
(E) anticipated by

28 The decision to ------ the famous Chicago Hotel horrified the members of the Historic Preservation Committee, who could not believe that such a cherished landmark would be replaced by a mall.

(A) raze
(B) mollify
(C) thwart
(D) append
(E) antiquate

29 Less ------ than his business partner, Jacob actually did not mind spending money when necessary and in fact was often ------ with their company's resources.

(A) venal . . prudent
(B) thrifty . . parsimonious
(C) fervent . . stingy
(D) frugal . . improvident
(E) succinct . . duplicitious

30 After the offensive and inappropriate comments were made by the disk jockey, the radio station was ------ by angry phone calls requesting that the host be fired immediately.

(A) distended
(B) jaded
(C) inundated
(D) delineated
(E) scrutinized

31 Critics of the Repertory Theater's latest rendition of *Macbeth* decry the play's ------ inclusion of twenty-first century technological advances such as laptop computers and cell phones.

(A) apt
(B) pusillanimous
(C) irreproachable
(D) innovative
(E) anachronistic

32 For over 20 years, NBC *Nightly News* anchorman Tom Brokaw, well known for his ------ and ------, provided keen insight and a calming voice to the American people.

(A) autonomy . . tranquility
(B) acumen . . equanimity
(C) sagacity . . irascibility
(D) affluence . . intemperance
(E) impetuosity . . steadfastness

The passages below are followed by questions based on their content. Answer the questions on the basis of what is stated or implied in the passages or any introductory material preceding them.

Line The discovery of x-rays was the culmination of more than a century of research on electrical discharges in evacuated vessels. Without doubt, x-rays had been generated many times before
5 their discovery, particularly in the 1880s when experiments with the cathode ray tubes of Sir William Crookes were very much in vogue. Sir William himself unsuccessfully sought the cause of the repeated and unaccountable
10 fogging of photographic plates stored near his cathode ray tubes. Röntgen was using such a tube covered in black paper, to study the fluorescence produced when cathode rays struck the glass wall of the tube. In the
15 darkened room he saw a brilliantly glowing screen of barium platinocyanide placed some distance away and deduced that invisible radiation was passing through the air from the tube to the screen. He subsequently showed
20 that the radiation would pass through a piece of aluminum 15 millimeters thick although with much reduced intensity. He called the radiation "x-rays."

33 Which of the following best describes the relationship between Crookes and Röntgen as it is described in the passage?

(A) They each discovered x-rays independently.
(B) Röntgen explained the cause of a phenomenon that Crookes had investigated.
(C) Röntgen and Crookes collaborated to develop instruments that were instrumental to the discovery of x-rays.
(D) Crookes instructed Röntgen in the use of x-rays.
(E) They had an adversarial relationship.

34 The sentence beginning on line 3 ("Without doubt . . . in vogue") indicates that

(A) x-ray experiments were more successful than had been previously believed
(B) Crookes made a discovery that made him wealthy
(C) cathode ray tubes were often ineffectual
(D) a phenomenon had gone unexplained for some time
(E) experiments involving cathode ray tubes were rare

Line It is still too little realized that, with the possible but not obvious exception of Melville, no American author has ever engaged in a more daring or eventful voyage of the mind than
5 Whitman. In his later years, Whitman himself for some reason attempted to hide its extent, retouched and toned down his most revealing poems and ingeniously fitted them together into a structure toward which he claimed he
10 had been working all the time. This jerry-built monument to the aging Whitman, which remains to this day the basis of nearly all anthologies of his work and is still reverently toured by uncritical guides, is actually a major
15 obstacle to the recognition of his true stature.

Fortunately a strong critical tradition has now for many years been working to lay bare for us the real structure of Whitman's work, the spiritual biography that emerges from a comparative reading of all the editions of his *Leaves of Grass*.

35 The main idea of this passage is that

(A) Melville's writings were more creative than Whitman's
(B) Whitman's early writings were significantly flawed
(C) anthologies of poetry are sometimes poorly edited
(D) the writing of good poetry is a lengthy process
(E) Whitman was a more introspective poet than most critics realize

36 The "jerry-built monument" (lines 10–11) is

(A) Whitman's more popular, but revised, poetry
(B) Melville's critique of Whitman's poetry
(C) Whitman's earliest work
(D) the attempt by modern critics to elevate Whitman's stature above that of other poets
(E) all of the editions of *Leaves of Grass*

The passages below are followed by questions based on their content or the relationship between the passages. Answer the questions on the basis of what is stated or implied in the passages or the introductory material preceding them.

Questions 37–48 are based on the following passages.

The following passages examine the debate about inorganic versus organic plant fertilization.

Passage 1

Line A plant is utterly indifferent to the source of its food. As long as it receives soluble nitrogen, potassium and phosphorus, sufficient but not excessive water and sunshine, and perhaps a few trace minerals, it is happy. It certainly doesn't care whether the nutrients came from renewable or non-renewable sources, organic farms or inorganic factories, or from kindly peasants or soulless manufacturers. Even if it wanted to discriminate on such grounds, it couldn't, because all of its nutrients must be converted into a standard inorganic form before they can be absorbed by the plant.

The argument favoring organic fertilizers over inorganic ones, then, gets no vote from the plant. If experiments had demonstrated that organic fertilizers help a plant to grow faster, perhaps it would change its mind. But as of yet that is not the case. In fact, some experiments have shown that inorganic fertilizers bring plants to maturity faster than organic fertilizers.

Proponents of organic-only fertilization suggest that inorganic products contain harmful chemicals that cause water pollution and promote nutrient deficiency in plants. Of course, improper use of almost anything—including organic materials—can be harmful. In reality, properly applied inorganic fertilizers are a boon to both plant and mankind. A simple soil test performed before application, informing the farmer of the relative abundance of nutrients, virtually eliminates any possible risk to the plant or environment. On the other hand, the indiscriminate use of organic materials can damage the soil and environment profoundly. Much organic fertilizer comes from manure, which can harbor human pathogens.

The argument of most organic advocates is a moral one: people who use organic fertilizers care about life, and those who use inorganic fertilizers care only about profits. It's worth noting that these advocates tend to be overwhelmingly well-fed and well to-do. A modicum of perspective would turn their position on its head. In the mid 1990s, low crop yields in Rwanda led directly to the most horrific genocide in recent memory. Hutu and Tutsi tribesmen began to doubt that their land would continue to support both tribes, so neighbors murdered each other in horrific numbers, likely in excess of a million. Could effective, quick-acting and low-cost inorganic fertilizer have thwarted this tragedy? We'll never have the chance to find out. Certainly, the

arguments against inorganic fertilizers seem petty at best, and grossly immoral at worst, in such a context. The loudest voices in this debate should not come from the economic and political elite, but the millions of hungry mouths around the world.

3 Passage 2

A recently concluded 32-year study conducted in Sweden compared inorganic and organic agricultural methods on the basis of their long term effects on crops and soil quality. The results are clear: organic methods are better than chemical fertilizers.

Crops treated organically yielded higher-quality protein, higher starch content, and a stronger resistance to harsh weather and pests. Even the soil benefitted from the long term exposure to organic nutrients. Soil surrounding organically-treated plants grew more fertile with time, while the chemically fertilized soil became depleted.

The disadvantages of chemical fertilizers are even more dramatic than this study suggests. In the study, chemical fertilizers were applied according to strict guidelines to minimize improper use. In reality, most farmers don't have a scientist's advantage of precise instruments. It's easy to overuse chemical fertilizers and "burn" the plant, stunting its growth or even killing it. Slight misuse of chemical fertilizers can also desiccate the soil and contribute to needlessly high watering costs.

Proponents argue that inorganic fertilizers are easily absorbed by plants, whereas organic compounds must first be broken down into inorganic form before they can be absorbed. However, this delayed absorption of organic materials is actually an advantage, because it prevents the harmful accumulation of excess nutrients in the soil.

Perhaps most importantly, organic methods are better for the greater environment and human community because, unlike chemical methods, they are environmentally and economically sustainable. Chemical fertilizers force poor farmers to depend on multinational corporations and limited natural resources, whereas organic methods encourage self-reliance and the use of renewable sources.

37 The first two paragraphs both use which of the following rhetorical devices?

(A) personification
(B) simile
(C) hyperbole
(D) statistical inference
(E) anecdote

38 As it is used in line 10, "grounds" most nearly means

(A) soil
(B) plot of land
(C) basis
(D) small particles
(E) destruction

39 The author of Passage 1 regards the "argument" summarized in lines 41–43 as

(A) a logical fallacy
(B) a misrepresentation of experimental evidence
(C) an unfair characterization
(D) an accurate summary of positions
(E) a necessary concession

40 The "perspective" mentioned in line 46 would most likely include knowledge of

(A) the dangers of chemical fertilizers
(B) the effectiveness of organic methods of cultivation
(C) the means by which organic material is broken down into inorganic material
(D) how to test for nutrient deficiency in soil
(E) the social effects of agricultural productivity

41 The tone of the final sentence of Passage 1 (lines 59–62) is best described as

(A) extremely hopeful
(B) moralistic
(C) self-deprecating
(D) jocular
(E) objective

42 As it is described in the first two paragraphs of Passage 2, the Swedish study demonstrated that organic methods

I. helped plants to reach maturity faster than inorganic methods did
II. produced hardier plants than inorganic methods did
III. were less expensive to use than chemical fertilizers

(A) I only
(B) II only
(C) I and II only
(D) II and III only
(E) I, II, and III

43 Which of the following best describes the relationship between the second and third paragraphs of Passage 2?

(A) The third paragraph draws further conclusions that complement those discussed in the second paragraph.
(B) The third paragraph establishes the experimental basis for the conclusions summarized in the second paragraph.
(C) The third paragraph discusses a potential flaw in the experimental results discussed in the second paragraph.
(D) The third paragraph bolsters the claims made in the second paragraph with an endorsement from an authority.
(E) The third paragraph cautions against optimism suggested by claims in the second paragraph.

44 The final paragraph of Passage 2 extends the author's argument primarily by discussing

(A) experimental evidence
(B) factors affecting crop yield
(C) a professional opinion
(D) social factors
(E) a specific historical event

45 Unlike the "experiments" (line 19) described in Passage 1, the "study" (line 63) described in Passage 2 focuses on

(A) plant yield rather than hardiness
(B) plant quality rather than growth rate
(C) the plant itself rather than the environment as a whole
(D) soil toxicity rather than soil fertility
(E) resistance to disease rather than plant size

46 The "reality" of line 29 in Passage 1 contrasts with the "reality" of line 81 in Passage 2 primarily in terms of

(A) farmers' attitudes toward chemical fertilizers
(B) the economic pressures faced by farmers
(C) the availability of inexpensive fertilizers
(D) the ability of farmers to avoid the misuse of fertilizers
(E) the effectiveness of organic methods of cultivation

47 Which of the following topics is mentioned in Passage 1 but NOT in Passage 2?

(A) the economic underclass
(B) crop yields
(C) potential risks from the use of fertilizers
(D) renewable resources
(E) violent conflict

48 The conclusions of both passages are similar in that they both appeal to the reader's

(A) need for self-preservation
(B) sense of nostalgia
(C) sense of humor
(D) concerns about pollution
(E) respect for the poor

You may check your work, on this section only, until time is called.

Section 4

Time—25 minutes
18 Questions (21–38)

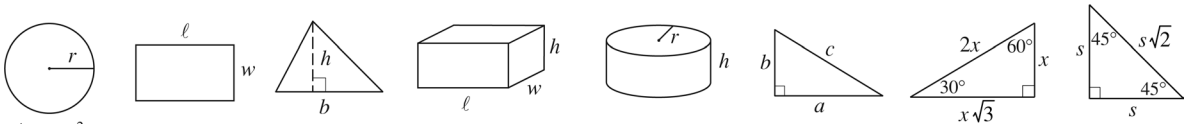
Directions for Multiple-Choice Questions

In this section, solve each problem, using any available space on the page for scratchwork. Then decide which is the best of the choices given and fill in the corresponding oval on the answer sheet.

4

- You may use a calculator on any problem. All numbers used are real numbers.
- Figures are drawn as accurately as possible EXCEPT when it is stated that the figure is not drawn to scale.
- All figures lie in a plane unless otherwise indicated.

Reference Information



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

$A = \ell w$

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

$V = \ell wh$

$V = \pi r^2 h$

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

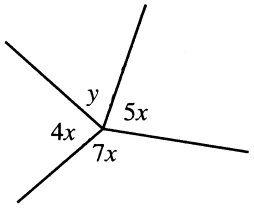
Special Right Triangles

The arc of a circle measures 360°.
Every straight angle measures 180°.
The sum of the measures of the angles in a triangle is 180°.

21 If $m^4 = 21$, what is the value of $3m^4$?

(A) 7
(B) 21
(C) 42
(D) 63
(E) 80

22

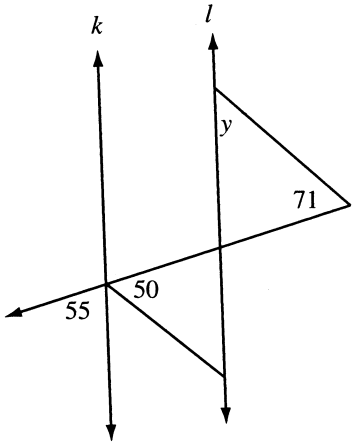


Note: Figure not drawn to scale.

In the figure above, four line segments meet at a point to form four angles. If $y = 2x$, what is the value of x?

(A) 10
(B) 20
(C) 30
(D) 40
(E) 50

23



Note: Figure not drawn to scale.

In the figure above, line k is parallel to line l. What is the value of y?

(A) 34
(B) 38
(C) 40
(D) 44
(E) 54

24 If x represents a nonnegative number, which of the following must be true?

I. $x < x^2 < x^3$
II. $x^2 > 0$
III. $x + x^2 + x^3 \geq 0$

(A) None
(B) I only
(C) III only
(D) II and III only
(E) I, II, and III

25 If $w = v + 2$ and $s = 4v + 5$, which of the following expresses s in terms of w?

(A) $4w + 3$
(B) $2w - 6$
(C) $4w - 3$
(D) $2w - 3$
(E) $4w + 13$

26 Which of the following represents the difference when the sum of 5 and $x/3$ is subtracted from the sum of x and 2?

(A) $\frac{2x - 9}{3}$
(B) $\frac{4x - 9}{3}$
(C) $4x + 5$
(D) $7 + \frac{4x}{3}$
(E) $17 + 2x$

27 Michelle commutes to work at an average speed of 30 miles per hour and returns home along the same route at an average speed of 15 miles per hour. If her total travel time is 3 hours, how many miles is the commute to work?

(A) 15
(B) 20
(C) 30
(D) 55
(E) 60

28 A jar contains only red, white, and blue gumballs. The probability of choosing a red gumball at random from the jar is 1/3, and there are three times as many white gumballs as there are blue gumballs. Which of the following could be the total number of gumballs in the jar?

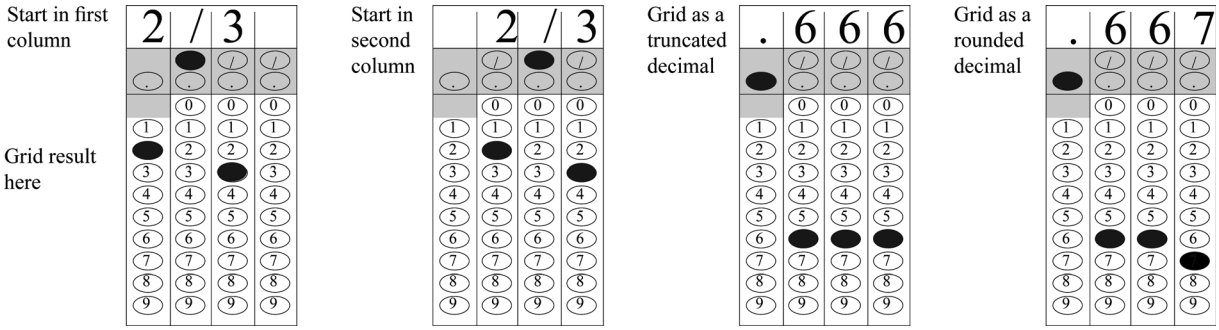
(A) 15
(B) 16
(C) 17
(D) 18
(E) 19

GO ON TO THE NEXT PAGE ▸▸▸

Directions for Student-Produced Response Questions

Each of the questions in this section requires you to solve the problem and enter your answer in a grid, as shown below.

- If your answer is 2/3 or .666 . . . , you must enter the most accurate value the grid can accommodate, but you may do this in one of four ways:



- In the example above, gridding a response of 0.67 or 0.66 is incorrect because it is less accurate than those above.
- The scoring machine cannot read what is written in the top row of boxes. You MUST fill in the numerical grid accurately to get credit for answering any question correctly. You should write your answer in the top row of boxes only to aid your gridding.
- Do not grid in a mixed fraction like $3\frac{1}{2}$ as | 3 | 1 | / | 2 | because it will be interpreted as $\frac{31}{2}$. Instead, convert it to an improper fraction like $7/2$ or a decimal like 3.5 before gridding.
- None of the answers will be negative, because there is no negative sign in the grid.
- Some of the questions may have more than one correct answer. You must grid only one of the correct answers.
- You may use a calculator on any of these problems.
- All numbers in these problems are real numbers.
- Figures are drawn as accurately as possible EXCEPT when it is stated that the figure is not drawn to scale.
- All figures lie in a plane unless otherwise indicated.

29 If the product of a number and 1.2 is equal to 6, what is the number?

30 The perimeter of a rectangle is 40, and the lengths of its sides have even integer values. What is one possible value for the area of the rectangle?

31 $X = \{1, 2, 3, 4, 5, 6\}$
$Y = \{2, 4, 5, 7, 10, 12\}$

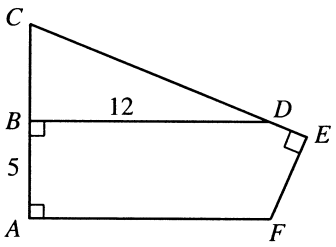
A number is to be selected randomly from set X and then doubled. What is the probability that the result will be a member of set Y?

32 Richard can type 40 words per minute, a rate that is 20% slower than Angie's typing speed. If it takes Angie 20 minutes to type a certain passage, how many minutes would it take Richard to type the same passage?

33 Of the 30 students in a sixth grade classroom, 12 play the piano, 8 play the guitar, and 14 do not play any instrument at all. How many students play both the guitar and the piano?

34 If $4^{20} = 16^{y}$, what is the value of y?

35



Note: Figure not drawn to scale.

In the figure above, line segment $\overline{BD}$ bisects line segment $\overline{AC}$. If $BD = AF$ and $DE = 3$, what is the area of polygon $ABCDEF$?

36 When a positive number is multiplied by itself, the result is equal to 3 more than twice the original amount. What is the value of that number?

37 The starting five players for the Rowayton High School girls basketball team score an average of 84 points per game. Stacey scores twice as many points per game as Lucy and Rachel each score. Lucy and Rachel each score three times as many points as Anna and Elizabeth each score. On average, how many more points per game does Stacey score than Elizabeth?

38 2, 4, 2, . . .

After the second term in the sequence above, each term is found by dividing the preceding term by the term before that. For example, the third term is equal to $4 \div 2 = 2$. What is the value of the thirty-fourth term of this sequence?

STOP

You may check your work, on this section only, until time is called.

Section 5

Time—30 minutes
39 Questions (1–39)

Directions for "Improving Sentences" Questions

Each of the sentences below contains one underlined portion. The portion may contain one or more errors in grammar, usage, construction, precision, diction (choice of words), or idiom. Some of the sentences are correct.

Consider the meaning of the original sentence, and choose the answer that best expresses that meaning. If the original sentence is best, choose (A), because it repeats the original phrasing. Choose the phrasing that creates the clearest, most precise, and most effective sentence.

5

EXAMPLE:

The children <u>couldn't hardly believe their eyes</u>.

(A) couldn't hardly believe their eyes
(B) would not hardly believe their eyes
(C) could hardly believe their eyes
(D) couldn't nearly believe their eyes
(E) could hardly believe his or her eyes

Ⓐ Ⓑ ● Ⓓ Ⓔ

1 Although hurricanes frequently strike the Bahamas, <u>usually doing little or no major structural damage</u>.

(A) usually doing little or no structural damage
(B) and usually doing little or no major structural damage
(C) little or no structural damage usually done
(D) they usually do little or no major structural damage
(E) as a result, they do little or no major structural damage

2 After the security cameras were installed in the grocery store, <u>less robberies occurred than in the past</u>.

(A) less robberies occurred than in the past
(B) fewer robberies occurred than in the past
(C) there was less robberies than there had been in the past
(D) the robberies of the past had become fewer
(E) the past robberies were fewer

3 <u>As customers, the service directors of the cable company believe that you</u> should be treated with honesty and respect.

(A) As customers, the service directors of the cable company believe that you
(B) The service directors of the cable company believe that you, as customers,
(C) As customers, the cable company service directors, believe that you
(D) The service directors as customers, believe that you
(E) The service directors of the cable company believing that, as customers, you

4 Billy fell from the roof to the driveway <u>without having broke a single bone</u>.

(A) without having broke a single bone
(B) having broke not a single bone
(C) without having broken a single bone
(D) without breaking a single bone
(E) having not broke a single bone

GO ON TO THE NEXT PAGE ▸▸▸

5 If I was going to run in the marathon this Saturday, I'd make sure to eat plenty of carbohydrates on Friday night.

(A) If I was going to run in the marathon this Saturday
(B) Was I to run in the marathon this Saturday
(C) If this Saturday I was going to run in the marathon
(D) If this Saturday I were going to be running in the marathon
(E) If I were going to run in the marathon this Saturday

6 Henry VIII was a powerful and ruthless ruler who changed the relationship between the church and the state, in order to gain more power for his kingdom.

(A) who changed the relationship between the church and the state, in order to gain more power for his kingdom
(B) that changed the relationship between the church and the state, in order to gain more power for his kingdom
(C) changing the relationship between the church and the state in order to gain more powerful kingdom
(D) who changed the relationship between the church and the state in order to gain more power for his kingdom
(E) that changed the relationship between the church and the state, in order to gain more power for his kingdom

7 Jackie Robinson is celebrated by Major League Baseball not only as an all-time great player, but also he broke the color barrier, becoming the first African American to play in the league.

(A) he broke the color barrier
(B) having broken the color barrier
(C) as the man who broke the color barrier
(D) the color barrier he broke
(E) being the one who broke the color barrier

8 Many incorrectly assume that all investment bankers are so obsessed with their work and therefore have no interest in having a family.

(A) are so obsessed with their work and therefore
(B) are so obsessed by their work that they
(C) are so obsessed with their work that they
(D) obsessed with their work therefore
(E) overly obsessed with their work to the point that they

9 Until Fermelläger was wiped out by the massive avalanche, it was the oldest established town in all of Switzerland.

(A) Until Fermelläger was wiped out by
(B) Before Fermelläger had been wiped out by
(C) Before Fermelläger having been wiped out by
(D) Fermelläger having been wiped out by
(E) Wiping out Fermelläger by

10 The recently married young couple struggled financially because their combined monthly salaries were not large enough to cover all of their mutual expenses they faced.

(A) their combined monthly salaries were not large enough to cover all of their mutual expensese they faced
(B) they were not making enough money to cover their monthly expenses
(C) their combined monthly salaries were not large enough; and did not cover their monthly expenses
(D) they were not making enough money each month in order to cover adequately the monthly expenses they were facing
(E) the monthly expenses were far more than their combined monthly salaries, which were not able to cover them

11 The American Dental Association recommends that everyone should floss their teeth once a day to remove plaque from all tooth surfaces.

(A) should floss their teeth once a day to remove
(B) floss their teeth once a day to remove plaque
(C) should floss their teeth once a day for removing plaque
(D) should floss his or her teeth once a day to remove plaque
(E) flosses his or her teeth once a day for removing plaque

GO ON TO THE NEXT PAGE ▸▸▸

12 To choose a good SAT preparation book, there are many reviews available on the internet to help you.

(A) To choose a good SAT preparation book, there are many reviews available on the internet to help you.
(B) Available on the internet, there are many reviews helping you to choose a good SAT preparation book.
(C) There are many reviews available on the internet to help you choosing a good SAT preparation book.
(D) Helping you choose a good SAT preparation book are many reviews available on the internet.
(E) There are many reviews available on the internet to help you choose a good SAT preparation book.

13 After Colonel Peters reached the shore and shed his soaking wet army gear, he was able to run quickly down the beach because he was much more light.

(A) After Colonel Peters reached the shore and shed his soaking wet army gear, he was able to run quickly down the beach because he was much more light.
(B) After Colonel Peters reached the shore and shed his soaking wet army gear, he was able to run down the beach because he was much lighter.
(C) Upon reaching the shore, Colonel Peters shed his soaking wet army gear, and he was able to run down the beach because he was much lighter.
(D) After Colonel Peters reached the shore, he shed his soaking wet army gear, he was able to run down the beach because he was much lighter.
(E) After Colonel Peters reached the shore and shed his soaking wet army gear, he was able to run quickly down the beach because he was much lighter.

14 Environmentalists estimate that by 2030, nearly 50 percent of the Earth's species of plants, animals, and microorganisms will have been destroyed or severely endangered by rainforest deforestation.

(A) will have been destroyed or severely endangered by rainforest deforestation
(B) have been destroyed or severely endangered by rainforest deforestation
(C) because of rainforest deforestation will be destroyed or severely endangered
(D) having been severely destroyed or endangered by rainforest deforestation
(E) will be destroyed because of rainforest deforestation, or severely endangered

15 Walking for over three hours, Larry's legs began to ache and he started to limp.

(A) Walking for over three hours, Larry's legs began to ache and he started to limp.
(B) Walking for over three hours, Larry started to limp because his legs began to ache.
(C) Having walked for over three hours, Larry started to limp because his legs began to ache.
(D) Having walked for over three hours, Larry's legs began to ache and he limped.
(E) Having walked for over three hours, Larry's limp started and his legs began to ache.

16 Prior to his recent resignation, former Secretary of State Colin Powell was at the forefront of the Bush administration's plan to advance economic development and pursuing security against terrorist attack.

(A) plan to advance economic development and pursuing
(B) plan to advance economic development and to pursue
(C) plan of advancing economic development and to pursue
(D) plan to advance economic development while at the same time pursuing
(E) planned advancement of economic development and pursuing of

17 The lava flowing from the volcano was so hot that it melted what objects, if any, that were in its path.

(A) what objects, if any, that were
(B) whatever objects, if any, happened to be
(C) any objects
(D) the objects, if any were
(E) any objects that happened to be

18 The injuries that patients suffer in car accidents often results from the failure of the person to wear his or her seat belt properly.

(A) The injuries that patients suffer in car accidents often results
(B) Patients who suffer injuries in car accidents often result
(C) Injuries suffered in car accidents by patients often results
(D) Car accidents from which patients suffer injuries often result
(E) The injuries that patients suffer in car accidents often result

19 Although the medical resident is unable to get to work on time, her chief resident would recommend her to any hospital in the country because of her great skill.

(A) Although the medical resident is unable to get to work on time
(B) The medical resident, being unable to get to work on time
(C) The medical resident has been unable to get to work on time
(D) While being unable to get to work on time, the medical resident and
(E) Even though the medical resident having been unable to get to work on time

20 Today's cordless telephones, which work as far as 500 feet from the receiver, are superior than the telephones of 70 years ago.

(A) than the telephones of
(B) by the telephones of
(C) to the telephones of
(D) to the telephones by
(E) to those of the telephones of

Directions for "Identifying Sentence Error" Questions

The following sentences may contain errors in grammar, usage, diction (choice of words), or idiom. Some of the sentences are correct. No sentence contains more than one error.

If the sentence contains an error, it is underlined and lettered. The parts that are not underlined are correct.

If there is an error, select the part that must be changed to correct the sentence.

If there is no error, choose (E).

EXAMPLE:

5

By the time they reached (A) the halfway point in the race (B), most of the runners (C) hadn't hardly (D) begun to hit their stride. No error (E)

A B ● D E

21 The freshmen, who are (A) easily manipulated by (B) the senior boys, spends (C) much of their (D) free time running errands for the older students. No error (E)

22 It is impossible to predict what affect (A) the death of the Prime Minister will have on the nation's economic relationship with its (B) neighbors, but many believe (C) that new leadership will revitalize (D) trade negotiations. No error (E)

23 The mother was horrified (A) by how roughly her brother handled her child (B) and admonished him to hold the baby gentler (C) in the future (D). No error (E)

24 Mitch pointed out to the class officers (A) that both (B) the bake sale and the car wash planned for (C) homecoming weekend were a fundraiser (D) that could raise a lot of money. No error (E)

25 If you want to survive a trip into (A) the dangerous Amazonian rainforest, one (B) must bring plenty of water to combat (C) dehydration and knee-high rubber boots to protect against (D) snake bites. No error (E)

26 It is (A) hard to believe (B) that even after so many rehearsals, neither the lead actor nor his understudies was able (C) to remember the lines for (D) the final scene. No error (E)

27 Political analysts argue that more voters will have voted (A) for Senator Kerry in the 2004 presidential election if (B) he had taken a more definitive (C) stance on (D) the war. No error (E)

28 Because (A) Angie has been a star athlete ever since she was in elementary school and also so friendly (B) to her classmates, she won the class presidency decisively (C) during (D) her senior year. No error (E)

GO ON TO THE NEXT PAGE ▶▶▶

29 The argument between (A) my younger brother and I (B) seemed insignificant when we (C) heard that our father had had (D) a heart attack and was in the hospital. No error (E)

30 Neuroplasticity is the brain's ability (A) to alter its structure (B) and function by strengthening circuits that are used often (C) and by weakening those (D) that are rarely engaged. No error (E)

31 Although considered by many to be the cutest (A) of the marsupials, wombats are actually pests to (B) Australian farmers, who (C) struggle to keep the strong and determined creatures away from (D) their crops. No error (E)

32 Not until (A) she would not run for (B) a second term as president has (C) the media run the stories about her failing health and battle with (D) lung cancer. No error (E)

33 The durability of most plastics is determined (A) by measuring the amount (B) of time its (C) structure remains intact during (D) stress testing under controlled conditions. No error (E)

34 Ancient Aztec stone statues are considered (A) by many (B) historians to have been of superior (C) quality than the Mayans (D). No error (E)

Directions for "Improving Paragraphs" Questions

Below is an early draft of an essay. It requires revision in many areas.

The questions that follow ask you to make improvements in sentence structure, diction, organization, and development. Answering the questions may require you to understand the context of the passage as well as the rules of standard written English.

5

Questions 35–39 refer to the following passage.

(1) *Emotion regulation is the process by which people interpret and modulate their emotional experiences.* (2) *There are several different emotion regulation strategies.* (3) *Some of them have been shown to produce positive results while others lead to deleterious effects.* (4) *Depending on a person's gender, age, mental health, culture, and innumerable other factors, different strategies are more likely to seem logical at different times.*

(5) *People rarely realize, in the moment, the precise method they are utilizing to handle a situation.* (6) *While it plays a pivotal role in daily life, emotion regulation is not always consciously understood.* (7) *This fact is illustrated with frightening clarity by the number of people who choose maladaptive emotion regulation strategies to cope with problems.* (8) *Such insight requires a level of self-awareness that people do not often exhibit in the present tense.*

(9) *A harmful and common strategy, rumination, is the most glaring example.* (10) *When people ruminate about a problem, they become stuck in a negative thought pattern in which they analyze all the potential causes and consequences of the issue at hand and apply them to any other problem that might appear to have even a faint parallel.* (11) *Often, people who ruminate claim that they do so to solve the problem, however, studies have shown that this strategy actually has the opposite effect.* (12) *As such, emotion regulation, while seemingly at the core of every decision we make, is actually not something people can control* (13) *Patients suffering from major depressive disorder often demonstrate blunted affect.* (14) *People need to become more aware of how they tend to handle situations and whether their chosen strategies are efficacious or counter-productive.*

35 What is the best way to combine sentences 2 and 3 (reproduced below)?
There are several different emotion regulation strategies. Some of them have been shown to produce positive results while others lead to deleterious effects.

(A) Some of the several emotion regulation strategies have been shown positive while others deleterious.
(B) There are several different emotion regulation strategies, some have been shown to produce positive results while others lead to deleterious effects.
(C) There are several different emotion regulation strategies; some have been shown to produce positive results while others had led to deleterious effects.
(D) Deleterious effects are shown by some of the several different emotion regulation strategies while some of them show positive results.
(E) The effects of the several different emotion regulation strategies, some of them positive, some of them deleterious.

5

36 Which of the following provides the most logical ordering of the sentences in paragraph 2?

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

37 What is the best way to revise the underlined portion of sentence 9 (reproduced below)?
A harmful and common strategy, rumination, is the most glaring example.

(A) (no revision is necessary)
(B) The most glaring example, rumination, is harmful and common strategy.
(C) The most glaring example of a common and harmful strategy is rumination.
(D) Rumination, the most glaring example of a harmful and common strategy.
(E) The most glaring example of a harmful and common strategy is rumination.

38 What is the best way to revise the underlined portion of sentence 12 (reproduced below)?
As such, emotion regulation, while seemingly at the core of every decision we make, is actually not something people can control.

(A) no revision is necessary
(B) the seeming core of every decision we make
(C) the core of every decision people make, it seems
(D) while seemingly at the core of every decision people are making
(E) when people make decisions, at the core

39 Which sentence in paragraph 3 contributes least to the unity of the passage?

(A) sentence 9
(B) sentence 10
(C) sentence 11
(D) sentence 13
(E) sentence 14

STOP

You may check your work, on this section only, until time is called.

ANSWER KEY

Section 2 Math	Section 4 Math	Section 1 Critical Reading	Section 3 Critical Reading	Section 5 Writing
☐ 1. D	☐ 21. D	☐ 1. E	☐ 25. B	☐ 1. D
☐ 2. B	☐ 22. B	☐ 2. A	☐ 26. D	☐ 2. B
☐ 3. B	☐ 23. E	☐ 3. C	☐ 27. B	☐ 3. B
☐ 4. A	☐ 24. C	☐ 4. D	☐ 28. A	☐ 4. C
☐ 5. E	☐ 25. C	☐ 5. B	☐ 29. D	☐ 5. E
☐ 6. D	☐ 26. A	☐ 6. A	☐ 30. C	☐ 6. A
☐ 7. C	☐ 27. C	☐ 7. E	☐ 31. E	☐ 7. C
☐ 8. D	☐ 28. D	☐ 8. A	☐ 32. B	☐ 8. C
☐ 9. B	# Right (A):	☐ 9. B	☐ 33. B	☐ 9. A
☐ 10. B		☐ 10. D	☐ 34. D	☐ 10. B
☐ 11. D	_____	☐ 11. B	☐ 35. E	☐ 11. D
☐ 12. C	# Wrong (B):	☐ 12. C	☐ 36. A	☐ 12. E
☐ 13. B		☐ 13. D	☐ 37. A	☐ 13. B
☐ 14. C	_____	☐ 14. A	☐ 38. C	☐ 14. A
☐ 15. C	# (A) $-\frac{1}{4}$(B):	☐ 15. C	☐ 39. C	☐ 15. C
☐ 16. E		☐ 16. C	☐ 40. E	☐ 16. B
☐ 17. B	_____	☐ 17. E	☐ 41. B	☐ 17. C
☐ 18. C	☐ 29. 5	☐ 18. B	☐ 42. B	☐ 18. E
☐ 19. D	☐ 30. 36, 64, 84, 96, or 100	☐ 19. E	☐ 43. A	☐ 19. A
☐ 20. C	☐ 31. $\frac{2}{3}$ or .666 or .667	☐ 20. A	☐ 44. D	☐ 20. C
	☐ 32. 25	☐ 21. A	☐ 45. B	☐ 21. C
	☐ 33. 4	☐ 22. B	☐ 46. D	☐ 22. A
	☐ 34. 10	☐ 23. D	☐ 47. E	☐ 23. C
	☐ 35. 96	☐ 24. B	☐ 48. E	☐ 24. D
	☐ 36. 3			☐ 25. B
	☐ 37. 30			☐ 26. C
	☐ 38. $\frac{1}{2}$ or 0.5			☐ 27. A
				☐ 28. B
				☐ 29. B
				☐ 30. E
				☐ 31. E
				☐ 32. C
				☐ 33. C
				☐ 34. D
				☐ 35. C
				☐ 36. A
				☐ 37. C
				☐ 38. D
				☐ 39. D
# Right (A): _____	# Right: _____	# Right (A): _____	# Right (A): _____	# Right (A): _____
# Wrong (B): _____		# Wrong (B): _____	# Wrong (B): _____	# Wrong (B): _____
# (A) $-\frac{1}{4}$(B): _____		# (A) $-\frac{1}{4}$(B): _____	# (A) $-\frac{1}{4}$(B): _____	# (A) $-\frac{1}{4}$(B): _____

SCORE CONVERSION TABLE

How to score your test

Use the answer key on the previous page to determine your raw score on each section. Your raw score on any section is equal to the number of correct answers on that selection minus 1/4 of the number of wrong answers, with the exception of the mathematical "grid-in" section, on which wrong answers are not deducted from your score. Your raw score on each section except Section 4 is simply the number of correct answers minus 1/4 of the number of wrong answers. On Section 4, your raw score is the total number of correct answers. Next, add the raw scores from Sections 2 and 4 to get your Math raw score, and add the raw scores from Sections 1 and 3 to get your Critical Reading raw score. Write the three raw scores here:

Raw Critical Reading score: _____

Raw Math score: _____

Raw Writing score: _____

Use the table below to convert these to scaled scores.

Scaled scores: Critical Reading: _____ Math: _____ Writing: _____

Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Scaled Score	Raw Score	Critical Reading Scaled Score	Math Scaled Score	Writing Scaled Score
48	80			15	44	46	48
47	80			14	43	45	46
46	78			13	41	44	45
45	76			12	40	43	44
44	74			11	39	42	43
43	72			10	38	41	41
42	71			9	37	40	40
41	69			8	36	39	39
40	68			7	34	38	37
39	67		80	6	33	36	36
38	66	80	80	5	32	35	35
37	64	77	78	4	30	34	33
36	63	74	77	3	29	32	32
35	62	72	76	2	27	30	31
34	62	71	74	1	25	29	30
33	61	70	73	0	22	26	29
32	60	68	71	−1	20	24	28
31	59	66	69	−2	20	21	27
30	58	64	68	−3	20	20	25
29	57	62	66	−4	20	20	24
28	56	61	65	−5	20	20	21
27	56	60	63	or below	20	20	20
26	54	59	62				
25	54	58	60				
24	53	57	59				
23	52	55	57				
22	51	54	56				
21	50	53	55				
20	49	52	54				
19	48	51	52				
18	47	50	51				
17	46	49	50				
16	45	47	49				

Detailed Answer Key

Section 1

1. **E** Sanzianna's mother did not pick up the phone for three days, and Sanzianna thought something awful had happened to her. But this *premonition* was *incorrect*, because the phone's batteries had run out. *intuition* = a sense of something not evident, an impression; *premonition* = a forewarning

2. **A** Grace was not surprised to see Lydia *wait until the last possible moment* to do the assignment because Lydia has always *postponed* her work whenever possible. *procrastinate* = put something off, oftentimes due to laziness; *pontificate* = speak in a pompous way; *meddle* = interfere in other people's business; *articulate* = speak clearly

3. **C** Because Minoxidil was designed to treat blood pressure but was found to increase hair growth, it can be inferred that this was an *unforeseen* effect of the drug. Because it *revolutionized* the science of hair replacement, it seems logical to consider the added effect to be a *beneficial* one. *eradicate* = eliminate completely; *anticipate* = foresee; *adjunct* = something attached to another; *mitigate* = soothe, lessen; *extraneous* = inessential, irrelevant; *supercilious* = lofty with pride, haughty

4. **D** Temper tantrums are displays of *whining, kicking, screaming, and hitting*, which are an *overdramatic* display of emotion that many believe are a normal part of development. *meticulous* = attentive to detail; *callous* = hardened, insensitive; *somber* = gloomy; *histrionic* = overly dramatic; *wistful* = yearning, sad

5. **B** The clause that follows the second blank defines what the second word should be. It should be a word that describes *a process by which one individual takes the spot of another* (supplanting). *Empirically* (derived from observation) makes good sense in the first blank because tracking behaviors of animals provides observational data. *definitively* = without doubt; *transmutation* = transformation; *empirical* = obtaining by observation; *supplant* = take the place of; *ambiguous* = unclear; *exhort* = urge; *nefarious* = wicked; *benediction* = a blessing; *incontrovertible* = unable to be proved wrong; *jurisdiction* = authority

6. **A** Passage 1 focuses on a disagreement between Pavlov and his student regarding how to interpret the results of his experiment. Passage 2, on the other hand, simply provides details of the *investigations* (line 20) undertaken by Pavlov and what he discovered, without mention of any "theoretical" explanation.

7. **E** The quotations around *"consciousness"* follow the statement that *Pavlov rejected completely any such "mentalistic" interpretation*. In other words, *consciousness* was a concept that he rejected, at least as an explanation for this particular phenomenon. Therefore, he did not hold the term in high regard as an explanation for his experimental results.

8. **A** Passage 1 refers to the *temporary association* (line 13) between stimulus and response, and Passage 2 states that the *association . . . can be repressed* (line 30). Therefore, both passages indicate that conditioned responses are not necessarily permanent.

9. **B** In saying that *the conditioned stimulus fails*, the author of Passage 2 means something like *the food stops coming when the metronome sounds* (lines 32–33). Therefore *fails* most nearly means *ceases to be associated with food*.

10. **D** The author makes an *analogy* between rocks in a pond and islands in the ocean, to suggest that a means of inferring the presence of rocks can be used in a similar way to infer the presence of islands.

11. **B** This paragraph describes the remarkable fact that the Polynesians were able to populate *a huge triangular area covering more than 7 million square miles of ocean* (lines 22–23) without the aid of *compasses, sextants, or telescopes* (lines 17–18) in *some thousand years*. In other words, the author is saying that achieving such geographical dominance in such a short time and without special instruments is remarkable.

12. **C** Since the passage states that the Polynesians did not have *maps or sea charts* (line 16), *telescopes* (line 18), or a *written language* (line 19), the *store of knowledge* could not have utilized any of these. The detailed description of the hands-on method of seafaring in the fifth paragraph further reinforces the fact that this knowledge was acquired firsthand.

13. **D** The Polynesian system of navigation, as described in the third paragraph, was based on the

interpretation of waves that were reflected from or deflected by islands and reefs that were far away. This is most analogous to the ability of dolphins to interpret sound waves that bounce off distant objects.

14. **A** The author explains what it means for the Polynesian art of navigation to be *an intimate one* by indicating that the sailor *had to be so close to the waves that he could feel their motions through touch* (lines 51–53). In other words, the method required close physical contact.

15. **C** Thor Heyerdahl is mentioned in the context of the *beginnings* (line 67) of the Polynesians, before their migrations throughout the Pacific.

16. **C** The passage states that on particular islands, *the population would explode, so a group would sail off again* (lines 73–75), implying that overpopulation led to migration. This overpopulation occurred because the land was *immune* (line 73) to disease, so the migrants could not have been trying to escape from disease.

17. **E** In saying that the Polynesians had a *more or less common language* (lines 86–87) throughout the Pacific, the author means that they shared a mutual language.

18. **B** The author states that *no one would wedge a discussion of Byzantine art into a speech on health care* (lines 5–7) to suggest that certain topics are inappropriate to a discussion because they are unrelated and distracting. In so doing, he is making the point that humor can likewise be *obscure* if not used properly.

19. **E** The author makes an analogy in the third paragraph in saying that the relationship between a speechwriter and a speech maker is like the relationship between a ventriloquist and a dummy. The *dummy*, then, is analogous to the person giving the speech.

20. **A** The author says that his client was *born a chairman* (lines 25–26), implying that he had innate leadership skills. Referring to him as *Adonis* reinforces the perception of his client as *charismatic*. The client himself, however, used *self-deprecating humor* (lines 27–28), and so had a more *humble* sense of himself.

21. **A** The story of Socrates serves as a caution to those who would have a *flippant attitude* (line 45) toward using humor in a speech. Socrates *ridiculed the ignorance and hypocrisy of his critics* (lines 49–50), an action that did not turn out well for him. This story is intended to caution the reader against *indiscretion* in using humor.

22. **B** The previous sentence stated that humor *has a contagious appeal that can win . . . elections* (lines 60–61). When the author then asks whether we can *recall a single joke by Walter Mondale or Michael Dukakis*, he is suggesting that we probably can't because they didn't use humor effectively and so lost their elections.

23. **D** The author states that *everyone else* (line 91) thinks that he or she can get *fresh jokes from newsletters and websites* (lines 90–91), and then goes on to suggest that *you should write your own humor* (lines 91–92). He is suggesting that humor from newsletters and websites is in fact *not* fresh and therefore is to be avoided.

24. **B** In saying that *the facts will speak for themselves* (lines 96–97) the author is explaining the idea that we live in an *absurd world* (line 94) that is full of sources for humor. Saying that these facts are *self-incriminating* suggests that the humor will come naturally from real situations.

Section 2

1. **D**

$$5x = 10$$

Divide by 5: $x = 2$

$$3y = 9$$

Divide by 3: $y = 3$

$$x + y = 2 + 3 = 5$$

(Chapter 9 Lesson 1: Solving Equations)

2. **B** First set up a proportion to determine how many apples are needed to make six pies.

$$\frac{6 \text{ apples}}{1 \text{ pie}} = \frac{x \text{ apples}}{6 \text{ pies}}$$

Cross-multiply: $x = 36$ apples

Next, set up a proportion to determine how many dozen this represents

$$\frac{12 \text{ apples}}{1 \text{ dozen}} = \frac{36 \text{ apples}}{x \text{ dozen}}$$

Cross-multiply: $12x = 36$

Divide by 12: $x = 3$ dozen

(Chapter 8 Lesson 4: Ratios and Proportions)

3. **B** Each car in the diagram represents 20 cars. King Paul's auto palace sold $3 \times 20 = 60$ cars. Crazy Todd's Car Asylum sold $3.5 \times 20 = 70$ cars. Therefore, Todd sold $70 - 60 = 10$ more cars than Paul.
(Chapter 8 Lesson 1: Numbers and Operations)
(Chapter 10 Lesson 8: Data Analysis)

4. **A** First solve for x. There are 180° in a triangle:

$$82 + 40 + x = 180$$

Combine like terms: $122 + x = 180$

Subtract 122: $x = 58$

Next solve for y by writing an equation for the larger triangle: $(2x) + 40 + y = 180$

Substitute for x: $2(58) + 40 + y = 180$

Combine like terms: $156 + y = 180$

Subtract 156: $y = 24$

(Chapter 11 Lesson 2: Triangles)

5. **E** Write an equation for the information given.

5 more than $\frac{1}{3}$ a number is 3 less than the number.

$$5 + \frac{1}{3}x = x - 3$$

$$5 + \frac{1}{3}x = x - 3$$

Add 3: $8 + \frac{1}{3}x = x$

Subtract $\frac{1}{3}x$: $8 = \frac{2}{3}x$

Divide by $\frac{2}{3}$: $12 = x$

(Chapter 9 Lesson 1: Solving Equations)

6. **D** Hasty reasoning might lead you to believe that since the 3rd Thursday is the 15th, the 3rd Tuesday would be the 13th because Tuesday comes before Thursday. From that would come the conclusion that the 4th Tuesday is the 20th. But the 13th is actually the *second* Tuesday of the month, since this particular month begins on a Thursday. So the correct answer is the 27th and not the 20th.
(Chapter 10 Lesson 3: Numerical Reasoning Problems)

7. **C** The prime numbers less than 20 are:

2, 3, 5, 7, 11, 13, 17, 19

(A) $2 + 3 + 5 = 10$
(B) $2 + 3 + 7 = 12$
(C) 13 cannot be done
(D) $2 + 5 + 7 = 14$
(E) $3 + 5 + 7 = 15$

(Chapter 8 Lesson 7: Divisibility)

8. **D** There are $4 + 3 + 5 + 2 + 6 = 20$ total pieces of fruit. The question asks for the probability that it is <u>not</u> a peach. Since there are 6 peaches, there are $20 - 6 = 14$ pieces of fruit that are <u>not</u> peaches. Therefore the probability is 14/20, or 7/10.
(Chapter 10 Lesson 6: Probability Problems)

9. **B** You must factor each of the quadratics to solve this problem. A *zero* is an x value that satisfies the equation and makes the function $f(x) = 0$.

$$x^2 - 5x - 6 = 0$$

Factor: $(x - 6)(x + 1) = 0$

Find the zeroes: x is either 6 or -1

$$x^2 - 2x - 3 = 0$$

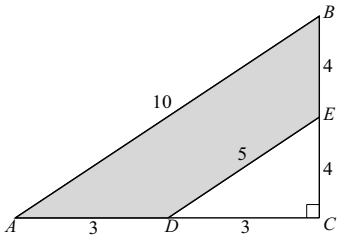
Factor: $(x - 3)(x + 1) = 0$

Find the zeroes: x is either 3 or -1

Since *both* equations are true, then x must be -1.
(Chapter 9 Lesson 5: Factoring)

10. **B** One way to solve this is to plug in a simple value for n, like 4. Then $w = 4(4) + 5 = 21$ and $z = 3(4) + 6 = 18$. The question asks for an expression that equals n, so look for 4 in the choices when you plug in $w = 21$ and $z = 18$. The only choice that gives you 4 is (B).
(Chapter 9 Lesson 6: Inequalities, Absolute Values, and Plugging In)

11. **D**



Points D and E are midpoints of their respective sides. Therefore, $AD = 3$. This means that $AC = 3 + 3 = 6$. Triangle ABC is a special 3-4-5 right triangle (6-8-10), so $BC = 8$ and $BE = EC = 4$. This can be verified by the Pythagorean theorem $6^2 + b^2 = 10^2$; $36 + b^2 = 100$; $b^2 = 64$; $b = 8$.

To find the shaded area, subtract the area of triangle DEC from the area of triangle ABC.

$$\text{Area } \Delta ABC = \frac{1}{2}bh = \frac{1}{2}(6)(8) = 24$$

$$\text{Area } \Delta DEC = \frac{1}{2}bh = \frac{1}{2}(3)(4) = 6$$

Area $ABED = 24 - 6 = 18$
(Chapter 11 Lesson 2: Triangles)

12. **C** If $x^2 = 25$, then x can be 5 or -5.
If $y^2 = 4$, then y can be 2 or -2.

Since $(x + 5)(y - 2) \neq 0$, we know that x cannot be -5 and y cannot be 2. This means that $x = 5$ and $y = -2$.

Substitute for x and y: $x^3 + y^3 = (5)^3 + (-2)^3$

Simplify: $125 + -8 = 117$

(Chapter 9 Lesson 4: Working with Roots)

13. **B** This is a counting problem. Use the fundamental counting principle to solve this problem. The triangle must be in the middle, so there is just one choice to fill this spot. Now that you have filled that spot, how many shapes can you choose from to fill the first spot? There are now four (hexagon, square, circle, and star). Now that you filled the first spot, how many shapes can you choose from for the second spot? There are three left. For the fourth spot there are two left, and for the final spot there is one left. The total number of possible arrangements can be found by multiplying these numbers: $4 \times 3 \times 1 \times 2 \times 1 = 24$.
(Chapter 10 Lesson 5: Counting Problems)

14. **C** You are told that $\overline{AC} \perp \overline{DB}$, which means you can use DB as the height of triangle ACD.

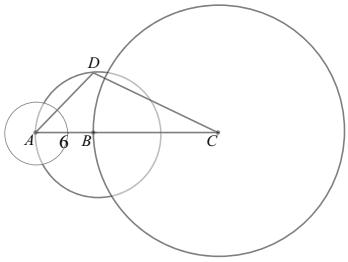
You are also told that the area of circle A is 9π. Solve for the radius of circle A:

$$\text{Area} = \pi r^2 = 9\pi$$

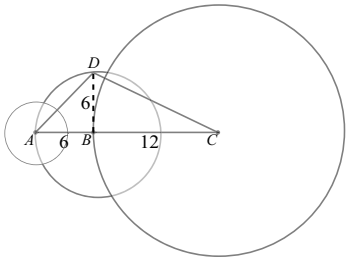
Divide by π: $r^2 = 9$

Take the square root: $r = 3$

You are told that the radius of circle B is twice the radius of circle A. Therefore $r_B = 2(3) = 6$.



You are told that the radius of circle B is one-half the radius of circle C. Therefore $r_C = 2(6) = 12$.



To find the area of ΔACD, substitute the values that you have found into the equation for the area of a triangle. The height of ΔACD is 6 because DB is a radius of circle B.

$$\text{Area} = \tfrac{1}{2}(b)(h)$$

$$\text{Area} = \tfrac{1}{2}(18)(6)$$

$$\text{Area} = 54$$

(Chapter 11 Lesson 5: Areas and Perimeters)
(Chapter 11 Lesson 8: Circles)

15. **C** The answer choices are all in terms of w, so solve for v in terms of w. Then substitute.

$$w = \frac{5}{v}$$

Multiply by v: $wv = 5$

Divide by w: $v = \dfrac{5}{w}$

$$\frac{v-5}{\frac{1}{w-2}} = (v-5)(w-2)$$

Substitute for v:

$$\left(\frac{5}{w} - 5\right)(w-2) = 5 - \frac{10}{w} - 5w + 10 = 15 - 5w - \frac{10}{w}$$

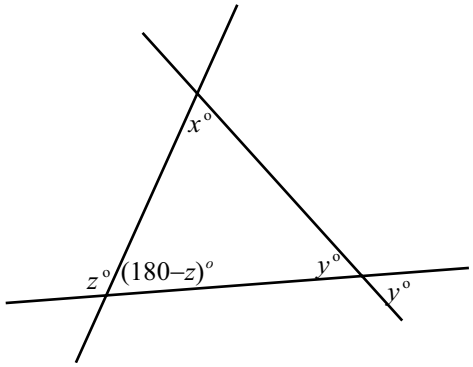
(Chapter 9 Lesson 1: Solving Equations)

16. **E** There are 180° in a triangle, so

$$x + y + (180 - z) = 180$$

Subtract 180: $x + y - z = 0$

Add z: $x + y = z$



(Chapter 11 Lesson 2: Triangles)

17. **B** You are told that $6 \bullet 2 = x \bullet 2$. Begin by solving for $6 \bullet 2$.

$$a \bullet b = \frac{a^b}{a-b}$$

$$6 \bullet 2 = \frac{6^2}{6-2} = \frac{36}{4} = 9$$

$$6 \bullet 2 = x \bullet 2$$

Substitute: $9 = x \bullet 2$

Solve for x: $\dfrac{x^2}{x-2} = 9$

Cross-multiply: $x^2 = 9(x-2)$

Distribute: $x^2 = 9x - 18$

Subtract $9x - 18$: $x^2 - 9x + 18 = 0$

Factor: $(x-6)(x-3) = 0$

Find the zeroes: $x = 6$ or $x = 3$

Since we are told that x must be an odd integer, the answer must be 3.
(Chapter 10 Lesson 1: New Symbol or Term Problems)

18. **C** It is important to realize that sides *AB, BC*, and *BD* are all equal to each other because they are radii of the circle. Because $BC = BD$, ΔBCD is a 45-45-90 triangle, and from that it can be determined that the radius of the circle is 6. From that, the perimeter of quadrilateral *ABCD* can be determined:

$$10 + 6 + 6 + 6\sqrt{2} = 22 + 6\sqrt{2}$$

(Chapter 11 Lesson 5: Areas and Perimeters)
(Chapter 11 Lesson 8: Circles)

19. **D** Since the minute hand is 4 inches long and twice as long as the hour hand, the hour hand must be 2 inches long. First calculate the distance each of the two hands travels in one full rotation. This distance is the circumference of a circle with the hand as a radius.

Circumference of minute hand: $C = 2\pi r = 2\pi(4) = 8\pi$

Circumference of hour hand: $C = 2\pi r = 2\pi(2) = 4\pi$

Next, find out how many full rotations each hand completes.

Minute hand: Between noon and 3 p.m., the minute hand makes *three* full rotations around the clock. This means it covers a total of $3(8\pi) = 24\pi$ inches.

Hour hand: Between noon and 3 p.m., the hour hand moves just 90° from the 12 to the 3, or $\frac{1}{4}$ of the circumference: $\frac{1}{4}(4\pi) = \pi$ inches.

The difference is $24\pi - \pi = 23\pi$ inches.

(Chapter 11 Lesson 8: Circles)

20. **C** Assume the starting price is d dollars. The final price is $d(1.05)(1.05)(1.25)(0.80) = 1.1025d$, which represents a 10.25% increase. Notice that you can't just "add up" the percent changes to get the correct answer.
(Chapter 8 Lesson 5: Percents)

Section 3

25. **B** During the deposition an *argument erupted* between the two lawyers, which indicates that they did not agree. The second clause indicates that they always behave in the same way in the handling of such proceedings. Since they are arguing this time, it can be inferred that they *always* argue. It would follow that the current argument would therefore not be *unexpected*. *conflicted* = disagreed; *wavered* = hesitated, moved back and forth; *diverge* = move apart

26. **D** *There are more plants and animals in the rainforest than can be found in all other ecosystems combined.* This distinction indicates that there is quite a wide variety of life in the rainforest. *succulent* = juicy; *defiant* = going against authority; *diverse* = varied; *erratic* = unsteady

27. **B** A woman is expected to gain 25 to 35 pounds during her pregnancy. The second clause goes on to explain where this weight comes from. The missing word means something like *explained by*. *debilitated* = showing impairment of strength; *ameliorated* = made better; improved

28. **A** Members of a Historic Preservation Committee would want to preserve landmarks at all costs. Thus, they would be horrified if a landmark were to be *destroyed*. *raze* = destroy completely; *mollify* = soothe; *thwart* = prevent from succeeding; *append* = add on to; *antiquate* = make obsolete

29. **D** The first half of the sentence suggests that Jacob does not mind spending money when it is necessary. This willingness to spend suggests he is less *cheap* than his partner. The use of the phrase *in fact* suggests that he may go too far with his willingness to spend. Because he sometimes spends too much, he is sometimes *wasteful*. *venal* = able to be bribed; *prudent* = using good judgment; *thrifty* = good with resources; *parsimonious* = excessively thrifty; *fervent* = passionate; *stingy* = unwilling to spend; *frugal* = wisely economical; *improvident* = wasteful; *succinct* = short and to the point; *duplicitous* = sneaky

30. **C** The disk jockey made *offensive and inappropriate* remarks, which led to *angry phone calls requesting that the host be fired*. These requests indicate that the show was so upsetting that it led to a *large number* of phone calls. *Inundated* (flooded) is a perfect fit. *distended* = swollen; *jaded* = worn out by overindulgence; *delineate* = draw the outline of; *scrutinize* = examine closely

31. **E** The critics *decry* (criticize) the play, which indicates that they did not like it. The play includes cell phones and laptop computers, which were obviously not around when the play is supposed to take place. These objects are *out of place in time*. *apt* = appropriate; *pusillanimous* = cowardly; *irreproachable* = beyond criticism;

innovative = new and exciting; *anachronistic* = out of place in time

32. **B** The second clause of the sentence provides us with the definitions for the missing words. The first word should mean *keen insight*, while the second word should mean *calming force*. *autonomy* = independence; *tranquil* = peaceful; *acumen* = keenness of insight; *equanimity* = even-temperedness, calmness; *sagacity* = wisdom; *irascible* = easily angered; *affluence* = wealth; *intemperance* = lack of control; *impetuosity* = impulsiveness; *steadfast* = unwavering, steady

33. **B** The passage states that Crookes *unsuccessfully sought the cause of the repeated and unaccountable fogging of photographic plates* (lines 8–10) and that Röntgen discovered the source of this radiation and called it *x-rays*. Therefore, Röntgen explained the cause of a phenomenon that Crookes had investigated.

34. **D** In saying that *without doubt, x-rays had been generated many times before their discovery*, the author is suggesting that x-rays had been detected indirectly, particularly by Crookes, but had not been explained until Röntgen's discovery.

35. **E** The central idea of the passage is that Whitman was more introspective, or inward-looking, than many critics believe. The author states that *it is still too little realized that* Whitman engaged in a *daring . . . voyage of the mind* (line 4). He then characterizes Whitman's poems as *revealing* (line 7) and as a *spiritual biography* (line 19). Taken together, these phrases indicate that the author regards Whitman's work as deeply introspective.

36. **A** This *jerry-built monument* which is *the basis of nearly all anthologies of his work* (lines 12–13) is the body of poetry that the author says Whitman *retouched and toned down* (line 7). If they are the basis of most anthologies of his work, then they must be among his more popular works; and if they have been retouched and toned down, then they have been revised.

37. **A** Both of the first two paragraphs employ *personification*, the attribution of human qualities to something that is not human, in saying that the plant is *indifferent* (line 1) and *doesn't care* (line 6) and by suggesting that it could conceivably *discriminate* (line 10), or *change its mind* (line 18).

38. **C** In saying that *it wanted to discriminate on such grounds* (lines 9–10), the author is saying *it wanted to distinguish among chemicals on the basis of their origin*. Therefore, *grounds* is being used to mean *basis*. (If you got this question wrong, and even if you didn't, see Shakespeare's *Hamlet*, Act V, Scene I.)

39. **C** The author of Passage 1 believes that this argument, which characterizes advocates of inorganic fertilizers as people who *care only about profits* (line 43), is unjust. He counters this conception with an example of how a concern for humanity could lead to an advocacy of inorganic fertilizer.

40. **E** The *perspective* that the author of Passage 1 provides in order to *turn [the position of organic-only advocates] on its head* (lines 46–47) is information about how low crop yields led to genocide in a particular case. This example illustrates the *social effects of agricultural productivity*.

41. **B** The final sentence of Passage 1 follows the statement that the arguments against inorganic fertilizers are *petty* and perhaps even *grossly immoral*. The moralizing tone extends into the final sentence, which suggests that *hungry mouths* have a higher moral standing than *the economic and political elite*. Therefore the tone is properly characterized as *moralistic*.

42. **B** The passage suggests that the Swedish study demonstrated that organically produced crops are hardier because they have a *stronger resistance to harsh weather and pests* (line 71). It does not suggest, however, that organic methods helped plants to mature at a faster rate. [Passage 1, however, cites *experiments* (line 16) that suggest the opposite.] It also did not suggest that organic methods are less expensive. The suggestion in lines 87–88 that inorganic fertilizers can lead to *needlessly high watering costs* refers to the misuse of chemical fertilizers in the field, and not to the proper use of such chemicals in the study.

43. **A** The third paragraph of Passage 2 extends the argument against inorganic fertilizers beyond the results of the study described in the second paragraph. It describes evidence that is *even more dramatic than this study suggests* (lines 78–79).

44. **D** The final paragraph discusses such social factors as the *human community* (line 99) and the

relationship between *poor farmers* and *multinational corporations* (lines 102–103).

45. **B** The *experiments* described in line 19 only pertained to the rate at which *inorganic fertilizers bring plants to maturity*. The *study* described in Passage 2, however, focuses on plant quality factors such as *higher-quality protein* (lines 69–70), *starch content* (line 70), and *resistance* (line 71).

46. **D** The *reality* (line 29) discussed in Passage 1 is that farmers need only conduct a *simple soil test* (lines 30–31) to avoid misusing inorganic fertilizers. The *reality* (line 81) discussed in Passage 2 is that farmers *don't have a scientist's advantage of precise instruments* (lines 82–83) to test the soil and apply the fertilizer and so can easily misuse the fertilizer.

47. **E** Violent conflict, specifically the genocide in Rwanda discussed in lines 47–62, is the only topic among the choices that is discussed in Passage 1 but NOT in Passage 2. Both passages refer to the economic underclass (*hungry mouths* in lines 61–62 and *poor farmers* in line 102), crop yields (*low crop yields* in lines 47–48 and *crops . . . yielded* in line 69), potential risks from the use of fertilizers (*human pathogens* in lines 38–39 and several risks discussed in lines 77–88), and renewable resources (*renewable sources* in line 7 and *renewable sources* in line 105).

48. **E** Both passages conclude by appealing to the reader's respect for the poor. Passage 1 suggests that inorganic fertilizers might help to feed more hungry people and prevent violence in poor countries, and Passage 2 suggests that organic methods can help poor farmers to become more self-reliant.

Section 4

21. **D** Don't spend too much time evaluating this problem. You are told that $m^4 = 21$ and asked to find the value of $3m^4$.

$3m^4 =$

Substitute 21 for m^4: $3(21) = 63$

(Chapter 9 Lesson 1: Solving Equations)

22. **B** Write an equation that indicates that there are 360° in a circle. $4x + 7x + 5x + y = 360$

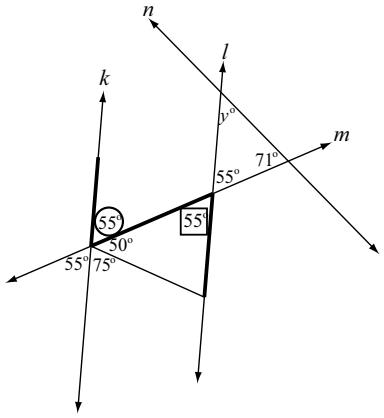
Substitute $2x$ for y: $4x + 7x + 5x + 2x = 360$

Combine like terms: $18x = 360$

Divide by 18: $x = 20$

(Chapter 11 Lesson 1: Lines and Angles)

23. **E** Because vertical angles are congruent, the angle circled in the diagram below is equal to 55°. Because line k is parallel to line l, alternate interior angles (outlined by the "Z") are congruent. The angle that is boxed is *also* 55°.



Because vertical angles are congruent, the angle in the smaller triangle is 55°, so

$55 + 71 + y = 180$

Combine like terms: $126 + y = 180$

Subtract 126: $y = 54$

(Chapter 11 Lesson 1: Lines and Angles)

24. **C** You are told that x represents a nonnegative number, which means it can be 0, a fraction less than 1, 1, or a number larger than 1.

I. $x < x^2 < x^3$	not true if $0 \le x < 1$
II. $x^2 > 0$	not true if $x = 0$
III. $x + x^2 + x^3 \ge 0$	always true

Don't forget that x can be 0 in this problem, and don't forget that it can be a fraction less than 1. If you do, you might pick either (D) or (E).
(Chapter 10 Lesson 3: Numerical Reasoning Problems)

25. **C**

$w = v + 2$

Subtract 2: $w - 2 = v$

$s = 4v + 5$

Substitute for v: $s = 4(w - 2) + 5$

Distribute: $s = 4w - 8 + 5$

$s = 4w - 3$

(Chapter 9 Lesson 1: Solving Equations)

26. **A** Write an equation: $(x+2)-(5+\frac{x}{3})$

Distribute: $x+2-5-\frac{x}{3}$

Combine like terms:

$$-3+\frac{2x}{3}=\frac{-9}{3}+\frac{2x}{3}=\frac{2x-9}{3}$$

(Chapter 9 Lesson 1: Solving Equations)

27. **C** This problem involves rates, so it helps to recall the rate equation $d = rt$.

Because she returns home *along the same route*, you can use d for the distance both to and from work. Because she spends a total of 3 hours commuting, if she spends t hours on the way to work, she will spend $(3 - t)$ hours coming home from work. Set up rate equations for both legs of the trip:

To work:	$d = 30(t)$
From work:	$d = 15(3 - t)$
Set the distances equal:	$30t = 15(3 - t)$
Distribute:	$30t = 45 - 15t$
Add $15t$:	$45t = 45$
Divide by 45:	$t = 1$

Substitute 1 for t and solve for d: $d = 30(1) = 30$ miles
(Chapter 10 Lesson 4: Rate Problems)

28. **D** Write an equation to represent the relationship between the number of white and the number of blue gumballs: $w = 3b$
The number of blue and white gumballs is $b + w = b + 3b = 4b$.
If $\frac{1}{3}$ of the gumballs are red, it follows that $\frac{2}{3}$ of the gumballs are either white or blue. If there are $4b$ white and blue gumballs, there must be $2b$ red gumballs for a total of $6b$ gumballs. Therefore the total number of gumballs is a multiple of 6, and choice (D) provides the only multiple of 6.
(Chapter 10 Lesson 6: Probability Problems)

29. **5** Write an equation for this statement. A product is the result of a multiplication:

$$1.2x = 6$$

Divide by 1.2: $x = 5$

(Chapter 9 Lesson 1: Solving Equations)

30. **36, 64, 84, 96, or 100**
Write an equation to calculate the perimeter of this rectangle.

$$2l + 2w = 40$$

Divide by 2: $l + w = 20$

There are many possible combinations of length and width that add up to 20. They are listed below:

1) $2 + 18 = 20$. Area $= 2(18) = 36$
2) $4 + 16 = 20$. Area $= 4(16) = 64$
3) $6 + 14 = 20$. Area $= 6(14) = 84$
4) $8 + 12 = 20$. Area $= 8(12) = 96$
5) $10 + 10 = 20$. Area $= 10(10) = 100$

Any of 36, 64, 84, 96, or 100 are acceptable answers.
(Chapter 11 Lesson 5: Areas and Perimeters)

31. **$\frac{2}{3}$ or .666 or .667** The choices from set X include 1, 2, 3, 4, 5, and 6. If you multiply each of those numbers by 2, you get 2, 4, 6, 8, 10, and 12. Of those *six* numbers, *four* of them (2, 4, 10, and 12) are in set Y. So the probability is 4 out of 6, or 2 out of 3, or $\frac{2}{3}$ or .666 or .667.
(Chapter 10 Lesson 6: Probability Problems)

32. **25** If Richard's rate is 40 words per minute and his rate is 20% slower than Angie's rate, then his rate must be $100\% - 20\% = 80\%$ of Angie's.

$$40 = 0.8x$$

Divide by 0.8: $50 = x$

Next, find out how many words she typed.

Words = rate × time

Words $= 50 \times 20 = 1{,}000$

Finally, find out how long it would take Richard to type a 1,000-word passage:

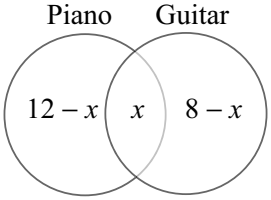
Words = rate × time

$1{,}000 = 40 \times$ time

Divide by 40: 25 minutes = time

(Chapter 10 Lesson 4: Rate Problems)

33. **4** Because 14 students do not play any instrument at all, $30 - 14 = 16$ students play either the piano, the guitar, or both. Set up a Venn diagram to solve this problem. The question asks how many students do both, so call that x. Since 12 total students play the piano, if x students play the piano *and* the guitar, then $12 - x$ students play *just* the piano. If 8 total students play the guitar, and x students play the piano *and* the guitar, then $8 - x$ students play *just* the guitar.



Write an equation to solve for x:

$$(12-x)+x+(8-x)=16$$

Combine like terms: $20-x=16$

Add x: $20=16+x$

Subtract 16: $4=x$

(Chapter 10 Lesson 5: Counting Problems)

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34. **10**

$$4^{20}=16^{y}$$

Substitute 4^2 for 16: $4^{20}=(4^2)^{y}$

Simplify: $4^{20}=4^{2y}$

Equate the exponents: $20=2y$

Divide by 2: $10=y$

(Chapter 9 Lesson 3: Working with Exponents)

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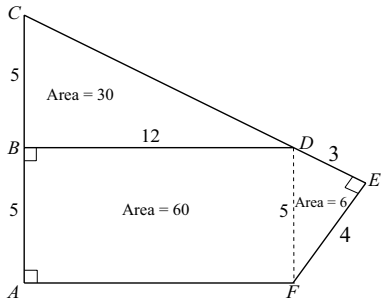
35. **96** To find the area of the whole figure, break it into a rectangle and two triangles. Because $ABDF$ is a rectangle, the hypotenuse of triangle DEF is 5. Since $DE=3$, EF must be 4 because it is a 3-4-5 right triangle. Because BD bisects AC, $BC=5$.



Area of rectangle: $(5)(12)=60$

Area of ΔCBD: $\frac{1}{2}(12)(5)=30$

Area of ΔDEF: $\frac{1}{2}(4)(3)=6$

Total area $=60+30+6=96$

(Chapter 11 Lesson 5: Areas and Perimeters)

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36. **3** Write an equation for this information. A positive number multiplied by itself is x^2.

$$x^2=3+2x$$

Subtract $3+2x$: $x^2-2x-3=0$

Factor: $(x-3)(x+1)=0$

Find the solutions: $x=3$ or $x=-1$

Since it is a positive number, $x=3$

(Chapter 9 Lesson 1: Solving Equations)

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37. **30** Let $S=$ the number of points Stacey scores, let $L=$ the number of points Lucy scores, let $R=$ the number of points Rachel scores, let $A=$ the number of points Anna scores, and let $E=$ the number of points Elizabeth scores.

Stacey scores twice as many points as Lucy, so $S=2L$

Stacey scores twice as many points as Rachel, so $S=2R$

Lucy and Rachel score three times as many points as Anna and Elizabeth, so $L=R=3E=3A$

Let's say that Elizabeth and Anna each scored x points. This means that Rachel and Lucy each scored $3x$ points and that Stacey scored $2(3x)=6x$ points.

The total number of points is $x+x+3x+3x+6x=14x$.

If they average 84 points per game, then

$$84=14x$$

Divide by 14: $x=6$

Therefore, Elizabeth and Anna average 6 points per game, Lucy and Rachel average 18 points per game, and Stacey averages 36 points per game. Therefore, Stacey averages $36-6=30$ more points per game than Elizabeth.

(Chapter 10 Lesson 2: Mean/Median/Mode Problems)

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38. $\frac{1}{2}$ **or 0.5** Write out the first 6 to 8 terms:

Third term: $4\div 2=2$

Fourth term: $2\div 4=1/2$

Fifth term: $1/2\div 2=1/4$

Sixth term: $1/4\div 1/2=1/2$

Seventh term: $1/2\div 1/4=2$

Eighth term: $2\div 1/2=4$

The first 8 terms: 2, 4, 2, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{2}$, 2, 4

The pattern is 2, 4, 2, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{2}$, and it repeats every 6 terms. To find the thirty-fourth term of the sequence, find how many times the pattern occurs in 34 terms. $34\div 6=5$ with remainder 4.

This means that the pattern repeats 5 full times with four terms left over. The term at the end of the fifth repetition is $\frac{1}{2}$. The fourth term after that is also $\frac{1}{2}$, the fourth term of the repeating pattern.

(Chapter 10 Lesson 7: Sequences)

Section 5

1. **D** This is a sentence fragment. Choice (D) completes the thought and makes a complete sentence.

(Chapter 13 Lesson 15: Coordinating Ideas)

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2. **B** Since *robberies* can be counted, the correct comparative word is *fewer*, not *less*.

(Chapter 13 Lesson 4: Comparison Errors)

3. **B** The opening participial phrase modifies *the service directors* and not *you, the customer.*
(Chapter 13 Lesson 7: Dangling and Misplaced Participles)

4. **C** The past participle of *to break* is *broken*, not *broke.*
(Chapter 13 Lesson 13: Irregular Verbs)

5. **E** The phrase *I was* is in the wrong mood. It should be in the *subjunctive mood*: *I were.*
(Chapter 13 Lesson 14: The Subjunctive Mood)

6. **A** This sentence is correct as written.

7. **C** The phrase *not only . . . but also* requires parallel construction, and choice (C) does it best.
(Chapter 13 Lesson 3: Parallelism)

8. **C** Choice (C) is the most concise and effective of the choices.
(Chapter 13 Lesson 2: Trimming Sentences)

9. **A** This sentence is correct as written.

10. **B** The original sentence is wordy and awkward. Choice (B) is the most concise, logical, and complete.
(Chapter 13 Lesson 2: Trimming Sentences)

11. **D** Because *everyone* is singular, the pronoun *their* is not correct. It should instead be *his or her.*
(Chapter 13 Lesson 5: Pronoun Agreement)

12. **E** This represents a misplaced infinitive. Answer choice (E) best corrects the error.
(Chapter 13 Lesson 8: Other Misplaced Modifiers)

13. **B** The comparative adjective *more light* is incorrect and should be replaced with *lighter.*
(Chapter 13 Lesson 4: Comparison Errors)
(Chapter 13 Lesson 12: Other Problems with Modifiers)

14. **A** This sentence is correct as written.

15. **C** As it is written, the participle *walking* modifies *Larry's legs* rather than *Larry* himself. In addition, the participle is not in the correct form; it should be in the perfect form *having walked* because only the walking he had done previously could cause his legs to ache.
(Chapter 13 Lesson 7: Dangling and Misplaced Participles)
(Chapter 13 Lesson 9: Tricky Tenses)

16. **B** The original sentence lacks appropriate parallel sentence structure. The phrasing in choice (B) is both parallel and clear.
(Chapter 13 Lesson 3: Parallelism)

17. **C** The original sentence is unnecessarily wordy. Answer choice (C) is the most concise and clear answer choice.
(Chapter 13 Lesson 15: Coordinating Ideas)

18. **E** The sentence contains a subject-verb disagreement. Because the word *injuries* is plural, the verb *results* should instead be in the plural form, *result.*
(Chapter 13 Lesson 1: Subject-Verb Disagreement)

19. **A** The sentence is correct as written.

20. **C** This sentence contains an idiom error. The preposition *than* should be replaced by *to.*
(Chapter 13 Lesson 10: Idiom Errors)

21. **C** Because the term *the freshmen* is plural, the verb *spends* should instead be in the plural form, *spend.*
(Chapter 13 Lesson 1: Subject-Verb Disagreement)

22. **A** *To affect* means to influence, and *an effect* is a result or a consequence. This is a diction error, and *affect* should be replaced by *effect.*
(Chapter 13 Lesson 11: Diction Errors)

23. **C** This is not the proper idiom. *Gentler* is a comparative adjective, not an adverb. It should instead be *more gently.*
(Chapter 13 Lesson 12: Other Problems with Modifiers)

24. **D** The *bake sale* and the *car wash* are two *fundraisers*, not a single *fundraiser.*
(Chapter 13 Lesson 4: Comparison Errors)

25. **B** When *you* is used as a subject in the beginning of a sentence, it is improper to then use *one* later on in that same sentence to refer to the same subject.
(Chapter 13 Lesson 5: Pronoun Agreement)

26. **C** Verbs that follow subjects of the form *neither A nor B* must agree with *B*, the noun closer to the verb. Since that noun is plural, *understudies*, the verb *was* should instead be *were.*
(Chapter 13 Lesson 1: Subject-Verb Disagreement)

27. **A** The verb *will have voted* is in the wrong mood. It should be in the subjunctive mood: *would have voted*, since it is a hypothetical situation.
(Chapter 13 Lesson 14: The Subjunctive Mood)

28. **B** The two clauses must be parallel: *has been so friendly* would make this clause parallel to the first.
(Chapter 13 Lesson 3: Parallelism)

29. **B** It should be between my brother and *me* rather than my brother and *I*.
(Chapter 13 Lesson 1: Subject-Verb Disagreement)

30. **E** There is no error in this sentence.

31. **E** There is no error in this sentence.

32. **C** The subject of the verb *has* is the plural noun *media*. (Notice that this sentence is "inverted" because the subject follows the verb.) As a result, the verb should instead be *have*.
(Chapter 13 Lesson 1: Subject-Verb Disagreement)

33. **C** The pronoun refers to *most plastics*, which is plural, so it must be the plural *their* rather than *its*.
(Chapter 13 Lesson 5: Pronoun Agreement)

34. **D** This is a comparisons error. The *Aztec statues* are illogically being compared to the *Mayans* themselves, rather than the *statues of the Mayans*.
(Chapter 13 Lesson 4: Comparison Errors)

35. **C** Choice (C) provides the most logical, concise, and clear phrasing.
(Chapter 13 Lesson 15: Coordinating Ideas)

36. **A** Sentence 6 provides a nice introduction to the second paragraph, initiating a discussion about emotion regulation concluding with the fact that it is a process that is not consciously understood. Sentence 8 further explains why people struggle to consciously understand the emotion regulation process. Sentence 5 states that in this lack of understanding, people do not realize the method they are using. Sentence 7 provides evidence backing the statement made in sentence 5.
(Chapter 13 Lesson 15: Coordinating Ideas)

37. **C** The phrasing in answer choice (C) is the most clear and logical of the answer choices.
(Chapter 13 Lesson 15: Coordinating Ideas)

38. **D** Because the subject *people* is used in the non-underlined portion of this sentence, it is important to be sure to keep the pronouns parallel in the underlined portion of the sentence. Answer choice (D) does this most effectively while keeping the original meaning intact.
(Chapter 13 Lesson 15: Coordinating Ideas)
(Chapter 13 Lesson 3: Parallelism)

39. **D** Sentence 13 discusses a common occurrence for individuals suffering from major depressive disorder, a topic not covered in this passage.
(Chapter 13 Lesson 15: Coordinating Ideas)