

SECTION 1

WRITING THE ESSAY

Time: 25 minutes

Directions: Using two sheets of lined theme paper, plan and write an essay on the topic assigned below. DO NOT WRITE ON ANOTHER TOPIC. AN ESSAY ON ANOTHER TOPIC IS NOT ACCEPTABLE.

Topic: Are parents the best teachers?

Directions: Do you agree or disagree with the following statement? Parents are the best teachers. Use specific reasons and examples to support your answer.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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SECTION 2

VERBAL REASONING

Time: 20 minutes

60 Questions

Directions: This section is divided into two parts that contain different types of questions. As soon as you have completed Part One, answer the questions in Part Two. You may write in your test booklet. For each answer you select, fill in the corresponding circle on your answer document.

Part One

Directions: Each question in Part One is made up of a word in capital letters followed by four choices. Choose the one word that is most nearly the same in meaning as the word in capital letters.

Example

SWIFT: (A) clean (B) fancy (C) fast (D) quiet

Answer

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

1. HARSH:

- (A) angry
- (B) poor
- (C) useless
- (D) severe
- (E) cold

2. INDICATE:

- (A) look at
- (B) point out
- (C) search for
- (D) help with
- (E) meet with

3. BLEAK:

- (A) cheerless
- (B) trembling
- (C) quiet
- (D) timid
- (E) unknown

4. SECURE:

- (A) safe
- (B) secret
- (C) aware
- (D) knotty
- (E) unseen

5. ALIEN:

- (A) unclear
- (B) brutal
- (C) futile
- (D) valuable
- (E) strange

6. CHRONIC:

- (A) legal
- (B) elaborate
- (C) difficult
- (D) doubtful
- (E) persistent

7. QUENCH:

- (A) demean
- (B) satisfy
- (C) withdraw
- (D) compare
- (E) complete

8. SEVERE:

- (A) limited
- (B) long
- (C) essential
- (D) extreme
- (E) frozen

9. RANSACK:

- (A) denounce publicly
- (B) cover completely
- (C) make secure
- (D) act quickly
- (E) search thoroughly

10. SUMMIT:

- (A) slope
- (B) plateau
- (C) landscape
- (D) peak
- (E) island

11. ALIAS:

- (A) deep emotion
- (B) formal relationship
- (C) assumed name
- (D) blatant falsehood
- (E) presumed location

12. PHOBIA:

- (A) anxiety
- (B) illumination
- (C) dismissal
- (D) retraction
- (E) height

13. PROPEL:

- (A) project
- (B) intend
- (C) repel
- (D) belie
- (E) fly

14. HEADSTRONG:

- (A) hysterical
- (B) foreign
- (C) useless
- (D) delicate
- (E) stubborn

15. CODDLE:

- (A) carry
- (B) baby
- (C) riddle
- (D) assume
- (E) waddle

16. KEEN:

- (A) nice
- (B) forgiving
- (C) sharp
- (D) rotund
- (E) dense

17. MURKY:

- (A) musty
- (B) gloomy
- (C) religious
- (D) forgetful
- (E) sentimental

18. TRYING:

- (A) weathered
- (B) morose
- (C) impossible
- (D) strenuous
- (E) easy

19. ADHERE:

- (A) complete
- (B) listen
- (C) connect
- (D) alter
- (E) stick

20. ENIGMATIC:

- (A) confused
- (B) happy
- (C) unfortunate
- (D) attractive
- (E) mysterious

21. CLANDESTINE:

- (A) dated
- (B) exclusive
- (C) secret
- (D) overt
- (E) fortunate

22. BOUNTEOUS:

- (A) abundant
- (B) energetic
- (C) industrious
- (D) elastic
- (E) mutinous

23. DIVERGE:

- (A) stay
- (B) analyze
- (C) distract
- (D) annoy
- (E) change course

24. BENIGN:

- (A) malignant
- (B) initial
- (C) virulent
- (D) gentle
- (E) blessed

25. CAUCUS:

- (A) corpse
- (B) meeting
- (C) partnership
- (D) cosmetic
- (E) dispersal

26. DISSEMINATE:

- (A) collect
- (B) collate
- (C) strip
- (D) spread
- (E) disagree

27. CHAGRIN:

- (A) anger
- (B) delight
- (C) alter
- (D) embarrass
- (E) wreck

28. VALOR:

- (A) foreboding
- (B) courage
- (C) hate
- (D) disclosure
- (E) treason

29. NONCHALANT:

- (A) impoverished
- (B) interested
- (C) indifferent
- (D) persecuted
- (E) caring

30. LIAISON:

- (A) laziness
- (B) scarf
- (C) permission
- (D) association
- (E) remedy

Part Two

Directions: Each question below is made up of a sentence with one or two blanks. One blank indicates that one word is missing. Two blanks indicate that two words are missing. Each sentence is followed by four choices. Select the one word or pair of words that will best complete the meaning of the sentence as a whole.

Example

Ann carried the box carefully so that she would not _____ the pretty glasses.

Answer

☒ (B) (C) (D)

- (A) break
- (B) fix
- (C) open
- (D) stop

When our boat first crashed into the rocks we were _____, but we soon felt _____ when we realized that nobody was hurt.

☒ (A) ☐ (B) ☐ (C) ☐ (D)

- (A) afraid; relieved
- (B) happy; confused
- (C) sleepy; sad
- (D) sorry; angry

31. Subject is to predicate as senator is to _____.

- (A) president
- (B) capitol
- (C) representative
- (D) senate
- (E) congress

32. Pungent is to odor as _____.

- (A) infect is to spread
- (B) proverb is to paragraph
- (C) resent is to denial
- (D) pervade is to atmosphere
- (E) intense is to emotion

33. Exploit is to adventure as _____.

- (A) safari is to expedition
- (B) school is to field trip
- (C) attack is to hunt
- (D) chase is to escape
- (E) rule is to governor

34. Spread is to scatter as separate is to _____.

- (A) distribute
- (B) group
- (C) displace
- (D) reap
- (E) integrate

35. Exuberant is to mood as adroit is to _____.

- (A) hand
- (B) dexterous

(C) adept

(D) movement

(E) proficient

36. Defiance is to opposition as exertion is to _____.

- (A) restraint
- (B) endeavor
- (C) vigor
- (D) challenge
- (E) expert

37. Food is to nutrition as light is to _____.

- (A) reading
- (B) vision
- (C) bulb
- (D) electricity
- (E) watt

38. Perpetuity is to impermanence as interminable is to _____.

- (A) brief
- (B) incessant
- (C) occasional
- (D) impertinent
- (E) eternal

39. Erratic is to predictable as exorbitant is to _____.

- (A) small
- (B) implicit
- (C) productive
- (D) absorbent
- (E) reasonable

40. Comment is to speech as _____.
(A) written is to spoken
(B) question is to answer
(C) exclamation is to statement
(D) note is to letter
(E) prose is to essay
41. Redundant is to necessary as _____.
(A) plain is to valuable
(B) desirable is to pretty
(C) fake is to expensive
(D) original is to needed
(E) vague is to explicit
42. Coral is to pink as aquamarine is to _____.
(A) bland
(B) deep
(C) blue
(D) rosy
(E) shady
43. Fan is to air as heart is to _____.
(A) lung
(B) power
(C) wind
(D) blood
(E) heat
44. Palette is to colors as _____.
(A) collage is to images
(B) paint is to canvases
(C) kaleidoscope is to glass
(D) side is to pictures
(E) brush is to pictures
45. Salutation is to letter as _____.
(A) heading is to stationary
(B) introduction is to book
(C) handwriting is to analysis
(D) postscript is to note
(E) postcard is to picture
46. Quill is to porcupine as _____.
(A) pouch is to kangaroo
(B) scent is to skunk
(C) wings is to duck
(D) needle is to thread
(E) tail is to pig
47. Caterpillar is to butterfly as _____.
(A) tadpole is to frog
(B) worm is to bait
(C) nest is to chick
(D) salmon is to fish
(E) egg is to dinosaur
48. Budget is to cost as _____.
(A) definition is to vocabulary
(B) demonstration is to argument
(C) foundation is to concrete
(D) blueprint is to design
(E) ratio is to value
49. Juror is to judge as soothsayer is to _____.
(A) soften
(B) report
(C) punish
(D) deny
(E) predict
50. Buffer is to impact as _____.
(A) boundary is to design
(B) bandage is to heal
(C) injury is to fault
(D) antiseptic is to infection
(E) median is to lane
51. Astute is to acumen as _____.
(A) clumsy is to skill
(B) vacuous is to intelligence
(C) diplomatic is to tact
(D) rainbow is to hue
(E) indigent is to wealth
52. Judge is to adjudicate as _____.
(A) champion is to defend
(B) doctor is to sublimate
(C) bodyguard is to guide
(D) suburb is to neighborhood
(E) lawyer is to propitiate
53. Imperceptible is to notice as _____.
(A) assuage is to repair
(B) enviable is to foresee
(C) insoluble is to discern
(D) invisible is to sense
(E) intangible is to touch

54. Claustrophobic is to enclosure as _____.
(A) misogynist is to women
(B) miser is to money
(C) narcissist is to sell
(D) myth is to tragedy
(E) glutton is to food
55. Hammer is to carpenter as _____.
(A) author is to typewriter
(B) awl is to cobbler
(C) scale is to musician
(D) computer is to printer
(E) saw is to timber
56. Gullible is to bilk as _____.
(A) vanquish is to disappear
(B) valiant is to cow
(C) affluent is to impoverish
(D) confident is to perturb
(E) docile is to lead
57. Overblown is to exaggerated as _____.
(A) anachronism is to timely
(B) malapropism is to accurate
(C) warrant is to justify
(D) indefinite is to tomorrow
(E) requirement is to optional
58. Ruthless is to pity as _____.
(A) ingenious is to character
(B) bewildered is to comprehension
(C) merciful is to kindness
(D) elderly is to longevity
(E) enamored is to love
59. Clown is to zany as _____.
(A) jester is to lugubrious
(B) canvas is to paint
(C) showoff is to flamboyant
(D) zealot is to patrician
(E) spy is to effusive
60. Horn is to blow as harp is to _____.
(A) pluck
(B) denounce
(C) pants
(D) democracy
(E) play

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SECTION 3

QUANTITATIVE REASONING

Time: 35 minutes

25 Questions

Directions: Any figures that accompany questions in this section may be assumed to be drawn as accurately as possible EXCEPT when it is stated that a particular figure is not drawn to scale. Letters such as x , y and n stand for real numbers.

Each question consists of a word problem followed by four answer choices. You may write in your test booklet; however, you may be able to solve many of these problems in your head. Next take a look at the four answer choices and select the best one.

Example

If $3 + x = 5$, what is the value of x ?

Answer

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

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

1. Which of the following is NOT a multiple of 3?

(A) 20
(B) 30
(C) 36
(D) 45
(E) 96

Questions 2-3 refer to the following definition.

For all real numbers m , $*m = 10m - 10$.

2. $*8 =$ _____.

(A) 70
(B) 60
(C) 17
(D) 7
(E) 0

3. If $*m = 100$, then $m =$ _____.

(A) 11
(B) 12
(C) 13
(D) 120
(E) 130

4. At Nifty Thrifty Buy "N Sell", an item that usually sells for \$12 is on sale for

- \$8. What approximate discount does that represent?

(A) 10%
(B) 25%
(C) 33%
(D) 50%
(E) 66%

5. In Jackie's golf club, 14 of the 21 members are right-handed. What is the ratio of left-handed members to right-handed members?

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

6. The sum of five consecutive positive integers is 55. What is the square of the greatest of these integers?

(A) 5
(B) 9
(C) 13
(D) 81
(E) 169

7. $2^2 \times 2^3 \times 2^4 =$ _____.

- (A) 24
(B) 64
(C) 2^8
(D) 2^9
(E) 2^{18}

8. If the area of a square is $121s^2$, what is the length of one side of the square?

- (A) $121s^2$
(B) $11s^2$
(C) $121s$
(D) $11s$
(E) 11

9. If 5 books cost d dollars, how many books can be purchased for 7 dollars?

- (A) $\frac{7d}{5}$
(B) $35d$
(C) $\frac{d}{35}$
(D) $\frac{35}{d}$
(E) $\frac{5d}{7}$

10. If g is an even integer, h is an odd integer, and j is the product of g and h , which of the following must be true?

- (A) j is a fraction.
(B) j is an odd integer.
(C) j is divisible by 2.
(D) j is between g and h .
(E) j is greater than 0.

11. What is the reciprocal of $\frac{5}{6}$?

- (A) $\frac{1}{6}$
(B) $\frac{5}{6}$
(C) $\frac{6}{5}$
(D) 5
(E) 6

12. If $\frac{1}{4}N = 2$, then $\frac{1}{8}N =$ _____.

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

13. In Figure 1, the number of shaded triangles is what fractional part of the total number of triangles?

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

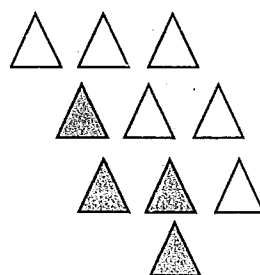


Figure 1

14. If the largest of five consecutive whole numbers is 11, then the average of these numbers is _____.

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

15. $\frac{2}{3} \times \frac{3}{6} \times \frac{1}{4} =$ _____.

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

16. If cats sleep $\frac{3}{5}$ of every day, how many full days would a cat sleep in a five-day period?

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

- (D) 3
(E) 4
17. What is the least number that can be added to 2,042 to produce a result divisible by 9?
(A) 1
(B) 2
(C) 3
(D) 5
(E) 6
18. An art club of 7 boys and 6 girls makes craft projects. If the girls average 3 projects each and the boys average 4 projects each, what is the total number of projects produced by this group?
(A) 5
(B) 9
(C) 22
(D) 23
(E) 46
19. The area of a rectangle with width 4 and length 10 is equal to the area of a triangle with base 8 and height of _____.
(A) 1
(B) 2
(C) 3
(D) 4
(E) 10

Questions 20-21 refer to the following definition.

For all real numbers r and s , $r \clubsuit s = (r \times s) - (r + s)$.

20. $8 \clubsuit 4 =$ _____.
(A) 20
(B) 16
(C) 12
(D) 8
(E) 4
21. If $L(5 \clubsuit 4) = 33$, then $L =$ _____.

- (A) 3
(B) 4
(C) 5
(D) 6
(E) 7
22. Jessie scores an 89, 87 and 92 on her first 3 exams. What must she score on her fourth exam to receive an average of 91?
(A) 92
(B) 96
(C) 98
(D) 99
(E) 100
23. Solve for x : $3x + 8 = 10x - 13$
(A) $\frac{5}{7}$
(B) $-\frac{5}{7}$
(C) -35
(D) -3
(E) 3
24. If the price of a handbag is \$75.00 before a discount of 25%, what is the final discounted price?
(A) \$11.25
(B) \$60.00
(C) \$63.75
(D) \$75.00
(E) \$56.25
25. Find the height of a triangle whose base is 15 inches and whose area is 150 square inches.
(A) 5 inches
(B) 5 square inches
(C) 10 inches
(D) 10 square inches
(E) 20 inches

SECTION 4

READING COMPREHENSION

Time: 35 minutes

40 Questions

Directions: This section contains eight short reading passages. Each passage is followed by several questions based on its content. Answer the questions is following a passage on the basis of what is stated or implied in that passage. You may write in your test booklet.

Passage 1

- On May 18, 1980, in Washington State, the volcano Mount Saint Helens erupted, sending a cloud of dust 15 miles into the air. The explosion was not unexpected; the earth's crust had shaken for weeks beforehand, providing people in the surrounding area with plenty of advance warning. In spite of these danger signals, no one was prepared
- (5) for the extent of the blast; over the course of several weeks, the volcano's eruption ripped the top 1,300 feet off the mountain, resulting in a landslide that was the largest in recorded history. 540 million tons of ash from the volcano were spread over three states, altering the earth's weather patterns for several years afterward. One thing missing from the initial eruption was fluid lava usually identified with volcanic activity.
- (10) Later eruptions emitted a thick and oozing lava. Thick lava is easily outrun because it moves extremely slowly. In addition, thick lava creates taller volcanoes because it often cools and hardens instead of flowing down the volcano's sides.

1. This passage is primarily about _____.
 - (A) the difficulty of predicting volcanic activity
 - (B) a contrast between different forms of lava
 - (C) a story of an unusual geological event
 - (D) the factors that cause landslides
 - (E) the geological history of Washington state
2. As used in line 4, the word "advance" means _____.
 - (A) moving forward
 - (B) undetected
 - (C) extremely urgent
 - (D) in the past
 - (E) ahead of time
3. According to the passage, all of the following were caused by the Mr. St. Helens eruption EXCEPT _____.
 - (A) changes in the earth's climate
 - (B) a massive landslide
 - (C) the emission of clouds of ash

- (D) tidal waves
(E) streams of lava
4. It can be inferred from the passage that fluid lava _____.
(A) destroyed many forests in Washington
(B) is only found in the United States
(C) is not easily outrun
(D) is very thick
(E) creates tall volcanoes
5. The author's style is best described as _____.
(A) skeptical (B) mysterious (C) informative
(D) surprised (E) dramatic
6. The author most likely mentions "providing people in the surrounding area with plenty of advance warning" in order to _____.
(A) criticize people who did not evacuate on time
(B) convey the importance of volcano warning systems
(C) indicate that no one was hurt in the blast
(D) show that experts thought they knew what was coming
(E) describe how experts were not seeing fluid lava

Passage 2

- Hope is the thing with feathers
That perches in the soul,
And sings the tune without the words
And never stops at all,
(5) And sweetest in the gale is heard,
And sore must be the storm
That could abash¹ the little bird
That kept so many warm.
I've heard it in the chilliest land,
(10) And on the strangest sea;
Yet, never, in extremity,
It asked a crumb of me.

¹discourage

"Hope" by Emily Dickinson

7. In this poem, hope is compared to _____.
(A) a sea (B) a storm (C) a song
(D) a gale (E) a bird

8. What is the poet saying in the last stanza of the poem?
- (A) The potential for hope is always present but it takes a great effort to make it a reality.
 - (B) The bird is very hungry because it is constantly singing and never takes any time to eat.
 - (C) It is terrible to imagine a world without hope and we must therefore do everything possible to preserve our hopes.
 - (D) The bird continues to sing through all conditions.
 - (E) Hope can be found anywhere and never asks anything in return for its loyalty.
9. The lines "the little bird/That kept so many warm" in the second stanza refer to the fact that _____.
- (A) hope has comforted a great many people over the years
 - (B) the bird provided protection before it was destroyed in a storm
 - (C) the feathers of birds have traditionally provided protection against the cold
 - (D) hope is a good last resort when faced with a difficult situation
 - (E) hope has often proven useless in the face of real problems
10. The attitude of the speaker in this poem can best be described as _____.
- (A) respectful
 - (B) angry
 - (C) nervous
 - (D) grateful
 - (E) unconcerned
11. The term "sore" most nearly means _____.
- (A) wet
 - (B) hurt
 - (C) kind
 - (D) angry
 - (E) severe

Passage 3

- The Big Bang theory, an explanation of the origins of our universe, is one of the greatest intellectual achievements of the twentieth century. According to this theory, about ten to twenty million years ago, the matter of which the universe is made was infinitely tightly compressed. Something—called the Big Bang—turned this matter into
- (5) a gigantic and flew away from its compressed state, bits of it became glued together to create galaxies and, later, stars and planets. The motion of the matter that flew out of the fireball continues today, and the universe appears to be expanding. The theory grew out of observations of the Doppler effect. It explains that the frequency of radiation given off by a moving body decreases as the sources get farther from the
- (10) observer. In 1965, scientists discovered that the radiation bathing the earth is at the precise micro-wave frequency that would be expected if the universe began with a big bang. Some scientists think the expansion of the universe will continue to infinity, while others theorize that gravity will, at some point in the far distant future, collapse back onto itself in a "big crunch", returning it to a state of compressed matter.
12. The best title for this passage is _____.
- (A) "Our Expanding Universe"
 - (B) "The Big Bang"

- (C) "Scientific Discoveries"
 - (D) "The Big Crunch"
 - (E) "The Doppler Effect"
13. As a moving object gets farther from its source, its radiation frequency _____.
 (A) collapses (B) stays the same (C) grows larger
 (D) grows smaller (E) expands
14. The matter of which the universe is made was originally _____.
 (A) growing (B) expanding (C) loosely connected
 (D) decreasing (E) tightly packed
15. According to the passage, which of the following is true?
 (A) Gravity will cause the universe to collapse.
 (B) Scientists believe the universe will expand infinitely.
 (C) The Doppler effect created the universe.
 (D) Scientists do not agree about the universe's future.
 (E) Stars and planets grew out of galaxies.
16. The author of this passage thinks the Big Bang theory _____.
 (A) shows the frequency of radiation bathing the earth
 (B) is a very important contribution to knowledge
 (C) explains what happens when a moving body gets farther from its source
 (D) does not explain the creation of the universe
 (E) has not been proven

Passage 4

Each town is built in a given site and situation. If the surrounding terrain is limited, most of our large cities have grown on fairly flat land. Here they have ready accessibility as well as the important advantage of the low cost of developing and servicing flat land. Thus, topographic differences between towns, affecting accessibility and

- (5) cost, can help some communities grow at the expense of others.

Nevertheless, landforms are more often important in determining how (that is, in what shape) towns and cities grow than why they grow. For example, Amsterdam, a city virtually built on water, and San Francisco, which is built on steep hills and surrounded on three sides by water, continue to grow and prosper. Each of these has

- (10) developed a unique character, partly because of its physical setting. In the early days of town building, when sites were chosen for defense (for example, the island location of Montreal), the landforms limited the towns' outward growth. Although these original limitations have ceased to affect any but the downtown areas, some modern communities must still adapt to their sites. The outposts of western Newfoundland,
- (15) which are limited to a narrow strip of land between the mountains and the ocean, provide one picturesque example.

- It has often been observed by conservationists that cities such as Vancouver, Toronto, and Los Angeles have grown at the expense of some of our best farmland. This phenomenon does not mean, however, that good soils are a prerequisite for urban growth. Many of these cities were originally agricultural market towns and grew because farming prospered. Only when transportation improvements enabled long-distance shipping of food could the city afford to "bite off the land that feeds it". The ease and low cost of building on flat land were also significant factors.

- An example of this conflict between urban and agricultural land uses is found in the Niagara Peninsula fruit belt of Ontario. This district has both sandy, well-drained soils and a moderate climate suited for tender-fruit growing, a very rare combination in Canada. However, the soils and climate, combined with its proximity to the Toronto-Hamilton urban industrial complex, make this region ideal for urban growth. As a result, some of the most valuable and irreplaceable farmland in southern Ontario has been taken out of production and built on.

- A pleasant climate has played a significant role in the growth of some towns and cities. Many Florida cities have prospered because of an almost year-round tourist trade. Arizona's warm dry winters attract many people, often with respiratory diseases, to Tucson, Phoenix, and other urban centers. The famous climate of southern California has been one of the major factors in its rapid urbanization and general population growth. Much of the California boom was also due to the fact that the film and airplane industries located there to take advantage of the sunshine and warm winters. Thus, some urban growth can best be explained by environmental factors.

17. The main idea of this passage is _____.
 (A) town growth is affected by environmental factors
 (B) Los Angeles grew at the expense of farmland
 (C) climate is crucial to urban growth
 (D) a town should be built on flat land
 (E) important cities are built by water
18. From this passage one can assume that a "conservationist" is interested in _____.
 (A) the best use of land
 (B) transportation of goods and services
 (C) the creation of parks
 (D) determining the growth of cities
 (E) the creation of cities
19. What is most unusual about the Niagara Peninsula?
 (A) Its location to cultural centers.
 (B) Its sandy soil and moderate climate.
 (C) Its warm, dry winters.
 (D) Its abundance of flat land.
 (E) Its mountains and desert.

20. In building a town today, which of the following can be inferred to be least important based on the passage?
- (A) Transportation (B) Climate (C) Flat land
(D) Defense (E) Accessibility
21. The best title of this passage is _____.
- (A) "Great Cities of the World"
(B) "Vancouver, Toronto, and Los Angeles: Great Cities"
(C) "Environment and Its Effects on City Growth"
(D) "The Suburb Versus the Inner City"
(E) "Population Growth"

Passage 5

- The kangaroo is found nowhere in the world but in Australasia. Ages ago, when that part of our earth was cut off from the Asian mainland, this fantastic animal from nature's long ago was also isolated. There are about two dozen species distributed through Australia, southward to Tasmania and northward to New Guinea and neighboring islands. Some are no bigger than rabbits; some can climb trees. They are known by a variety of picturesque names: wallabies, wallaroos, potoroos, boongaries, and paddymelons. But the kangaroo—the one that is Australia's national symbol—is the great gray kangaroo of the plains, admirably known throughout the island continent as the Old Man, and also as Boomer, Forester, and Man of the Woods. His smaller mate,
- (5) in Australian talk, is called a flyer. Their baby is known as Joey.

- A full-grown kangaroo stands taller than a man, and commonly weighs 200 pounds. Even when he sits in his favorite position, reposing on his haunches and tilting back on the propping support of his "third leg"—his tail—his head is five feet or more above the ground. His huge hind legs, with steel-spring power, can send him sailing over a ten-
- (15) foot fence with ease, or in a fight can beat off a dozen dogs. A twitch of his tail can break someone's leg like a match stick.

Kangaroos provide an endless supply of tall tales to which wide-eyed visitors are treated in the land Down Under. The beauty of the tall tales about the kangaroo is that they can be almost as tall as you please and still be close to fact.

22. Kangaroos are found only _____.
- (A) in Australasia (B) on the Asian mainland (C) in Tasmania
(D) on New Guinea (E) in Australia
23. A female kangaroo is called _____.
- (A) a potoroo (B) a flyer (C) the Old Man
(D) a Joey (E) a wallaby

24. The amazing jumping power of the kangaroo is chiefly due to the _____.
 (A) kangaroo's size
 (B) kangaroo's weight
 (C) support of the tail
 (D) kangaroo's tilted sitting position
 (E) power of the hind legs
25. Which statement is true according to the passage?
 (A) A kangaroo's tail is a powerful weapon.
 (B) The most widely known species of kangaroo is no larger than a rabbit.
 (C) Visitors to Australia hear very little about kangaroos.
 (D) Kangaroos have three legs.
 (E) The name "Old Man" shows the people's dislike of kangaroos.
26. The author believes that the stories told about kangaroos are generally _____.
 (A) beautiful (B) suspicious (C) true
 (D) ancient (E) harmful

Passage 6

One day recently, a man in a ten-gallon hat appeared at the gate of New York's famous Bronx Zoo. "Just stopped by on my way through town," he told zoo officials. "I've got an animal outside I think you might like to see."

- (5) The officials raised their eyebrows and looked at each other meaningfully, but the man in the hat didn't seem to notice. He went on to introduce himself as Gene Holter. "I call it a Zonkey," he said calmly, "because it's a cross between a donkey and a zebra. I've got his parents out there, too."

- (10) The zoo officials didn't wait to hear about the parents. They left their desks and started for the gate. Outside, Mr. Holter opened the side door of a huge truck and reached inside. Calmly, he pulled out a gibbon, and hung it, by its tail, from a tree. Then he walked past five ostriches and carried out the baby Zonkey.

- (15) Just three weeks old, the only Zonkey in the world had long ears, a face and legs covered with candy stripes, and a body covered with brown baby fuzz. The parents were on hand, too. The father was no ordinary zebra. He was broken to ride, and one of the zoo officials realized a lifelong dream when he jumped on the zebra's back and cantered around.

When last seen, Mr. Holter and his caravan were on their way to Dayton and then to Anaheim, California, where they live year-round.

27. Mr. Holter's manner was _____.
 (A) excitable (B) demanding (C) matter-of-fact
 (D) personable (E) boastful

28. When Mr. Holter first approached the zoo officials, they _____.
(A) laughed behind his back
(B) couldn't wait to realize a lifelong dream
(C) thought he was telling a tall tale
(D) thought he was an interesting person
(E) were excited about his announcement
29. Mr. Holter probably made a living _____.
(A) filming animals
(B) working as a zoo official
(C) traveling and showing his animals
(D) breeding animals for scientific experiments
(E) as a veterinarian

Passage 7

- In 1904, the U. S. Patent Office granted a patent for a board game called "The Landlord's Game", which was invented by a Virginia Quaker named Lizzie Magie. Magie was a follower of Henry George, who started a tax movement that supported the theory that the renting of land and real estate produced an unearned increase in land values that profited a few individuals (landlords) rather than the majority of the people (tenants). George proposed a single federal tax based on land ownership; he believed this tax would weaken the ability to form monopolies, encourage equal opportunity, and narrow the gap between rich and poor.
- (5)

- Lizzie Magie wanted to spread the word about George's proposal, making it more understandable to a majority of people who were basically unfamiliar with economics. As a result, she invented a board game that would serve as a teaching device. The Landlord's Game was intended to explain the evils of monopolies, showing that they repressed the possibility for equal opportunity. Her instructions read in part: "The object of this game is not only to afford amusement to players, but to illustrate to them how, under the present or prevailing system of land tenure, the landlord has an advantage over other enterprisers, and also how the single tax would discourage speculation."
- (10)
- (15)

- The board for the game was painted with forty spaces around its perimeter, including four railroads, two utilities, twenty-two rental properties, and a jail. There were other squares directing players to go to jail, pay a luxury tax, and park. All properties were available for rent, rather than purchase. Magie's invention became very popular, spreading through word of mouth, and altering slightly as it did. Since it was not manufactured by Magie, the boards and game pieces were homemade. Rules were explained and transmuted, from one group of friends to another. There is evidence to suggest that The Landlord's Game was played at Princeton, Harvard, and the University of Pennsylvania.
- (20)
- (25)

- In 1924, Magie approached George Parker (President of Parker Brothers) to see if he was interested in purchasing the rights to her game. Parker turned her down, saying that it was too political. The game increased in popularity, migrating north to New York state, west to Michigan, and as far south as Texas. By the early 1930s, it reached Charles Darrow in Philadelphia. In 1935, claiming to be the inventor, Darrow got a patent for the game, and approached Parker Brothers. This time, the company loved it, swallowed Darrow's prevarication, and not only purchased his patent, but paid him royalties for every game sold. The game quickly became Parker Brothers' bestseller, and made the company, and Darrow, millions of dollars.

- When Parker Brothers found out that Darrow was not the true inventor of the game, they wanted to protect their rights to the successful game, so they went back to Lizzie Magie, now Mrs. Elizabeth Magic Phillips of Clarendon, Virginia. She agreed to a payment of \$ 500 for her patent, with no royalties, so she could stay true to the original intent of her game's invention. She therefore required in return that Parker Brothers manufacture and market The Landlord's Game in addition to Monopoly. However, only a few hundred games were ever produced. Monopoly went on to become the world's bestselling board game, with an objective that is the exact opposite of the one Magie intended: "The idea of the game is to buy and rent or sell property so profitably that one becomes the wealthiest player and eventually monopolist. The game is one of shrewd and amusing trading and excitement."

30. In line 13, what does *repressed the possibility for equal opportunity* mean?
- (A) Monopolies led to slavery.
 - (B) Monopolies were responsible for the single tax problems.
 - (C) Monopolies made it impossible for poorer people to follow Henry George.
 - (D) Monopolies were responsible for Lizzie Magie's \$ 500 payment and Charles Darrow's millions.
 - (E) Monopolies made it impossible for poorer people to have the same chances as the wealthy.
31. In line 33, what does *swallowed Darrow's prevarication* mean?
- (A) Ate his lunch.
 - (B) Believed his lie.
 - (C) Understood his problem.
 - (D) Played by his rules.
 - (E) Drank his champagne.
32. In line 24, the statement that the rules of The Landlord's Game were *explained and transmuted* relies on the notion that _____.
- (A) when people pass along information by word of mouth, it goes through changes
 - (B) when people explain things to their friends, they take on a different appearance
 - (C) friends rely on one another for vital information
 - (D) it's not always easy to play by the rules
 - (E) word of mouth is the best way to spread information

33. In paragraph 4, the author implies that _____.
- (A) Parker Brothers bought the game from Charles Darrow
 - (B) it is not difficult to get a patent for an idea you didn't invent
 - (C) Monopoly made Parker Brothers and Darrow millions of dollars
 - (D) Lizzie Magie tried to sell her game to George Parker
 - (E) The Landlord's Game was popular with Quakers
34. Why did Mrs. Phillips sell her patent to Parker Brothers?
- (A) So a large company would market her game and spread the word about Henry George's single tax theory.
 - (B) So she could make money.
 - (C) So The Landlord's Game could compete with Monopoly.
 - (D) So the truth would be told about Charles Darrow.
 - (E) So she would become famous.
35. All of the following questions can be explicitly answered on the basis of the passage EXCEPT _____?
- (A) Why did Lizzie Magie invent The Landlord's Game
 - (B) Was was the object of The Landlord's Game
 - (C) What were some of the properties on The Landlord's Game board
 - (D) Who did Charles Darrow sell the game to
 - (E) How did Parker Brothers find out that Charles Darrow didn't invent the game

Passage 8

- Acupuncture is a type of medical therapy that has been part of Chinese medicine since ancient times. It involves the insertion of thin, solid needles into specific sites on the body's surface. The belief is that the application of a needle at one particular point produces a specific response at a second point. It is based on the ancient Chinese philosophy that human beings are miniature versions of the universe and that the forces that control nature also control health. These forces are divided between two main principles called the yin and the yang, which have an opposite but complementary effect on each other. For example, one force keeps the body's temperature from rising too high and the other keeps it from dropping too low. When they are in balance, the body
- (5) maintains a constant, normal state. Disease occurs when these forces get out of balance.
- (10)

- Although acupuncture had been used in Western countries during many periods, it was not until the 1970s that it gained widespread interest, when it was determined that it could be used to control pain during surgery. The mechanism for its effectiveness is
- (15) still a mystery, but it has become a very popular technique in many countries in the treatment of various diseases and medical problems.

36. Which of the following is true about acupuncture?

- I . Although originally only a part of Chinese medicine, it is now practiced in many Western countries.
- II . It has been used to control pain during surgery since ancient times.
- III . The mechanism for its effectiveness was discovered during the 1970s.

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

37. This passage is primarily about _____.

- (A) the meaning and use of the yin and the yang
- (B) different types of medical therapies and their relative effectiveness
- (C) the historical and philosophical back ground to acupuncture
- (D) modern uses of acupuncture both in China and in Western countries
- (E) various diseases that are particularly common among the Chinese

38. According to the passage, acupuncture is based on _____.

- (A) an ancient Chinese religious ceremony that involves the insertion of needles into the body
- (B) a philosophy of health and disease that originated in China but has been totally changed by Western countries
- (C) a firm belief in the Chinese gods known as the yin and the yang
- (D) the ideas of an astronomer who was attempting to study the universe in ancient times
- (E) the idea that the human body is a model of the universe and is therefore controlled by the forces of nature

39. According to the passage, the yin and the yang are principles that represent _____.

- (A) competing, balancing forces within the body
- (B) similar treatments for different diseases
- (C) states of health and disease
- (D) the ideas of comfort and pain
- (E) high and low extremes of temperature

40. The author includes the example of the yin and the yang controlling the extremes of body temperature in order to _____.

- (A) suggest a possible explanation for why people sometimes run high fevers
- (B) highlight a feature of the body that acupuncture has not yet been shown to influence
- (C) clarify how these forces have a complementary effect on each other
- (D) provide proof that acupuncture is an effective medical therapy
- (E) back up her claim that the forces within the body mirror the forces of the universe

GO ON TO THE NEXT SECTION

SECTION 5

MATHEMATICS ACHIEVEMENT

Time: 40 minutes

20 Questions

Directions: Each question is followed by four suggested answers. Read each question and then decide which one of the four suggested answers is best.

Find the row of spaces on your answer document that has the same number as the question. In this row, mark the space having the same letter as the answer you have chosen. You may write in your test booklet.

Example

$$(5 + 3) \div 2 =$$

(A) 6

(B) 8

(C) 10

(D) 13

Answer

The correct answer to this question is lettered A, so space A is marked.

1. The crown in Figure 1 is made up of toothpicks that each have the same length. If each toothpick is 3 meters long and each side is equal to one toothpick, what is the perimeter of the crown in meters?

- (A) 5
(B) 7
(C) 10
(D) 14
(E) 21

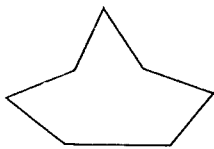


Figure 1

2. D is an odd number between 4 and 11. If D is also between 7 and 18, what is the value of D ?
- (A) 5
(B) 7
(C) 8
(D) 9
(E) 11

3. Gary has a collection of 20 different operas and his roommate Paul has a collection of 18 different operas. If Paul and Gary have 4 operas common to both record collections, how many different operas do they have between them?

- (A) 18
(B) 30
(C) 34
(D) 36
(E) 38

4. If $\frac{1}{6}G = 18$, then $\frac{1}{3}G =$ _____.

- (A) 6
(B) 9
(C) 36
(D) 54
(E) 63

5. A model sailboat floating on the water is attached to a string 1 meter long, as shown in Figure 2. If the string is tied to a post on the dock, which of the following best shows the area of water on which the sailboat can float?

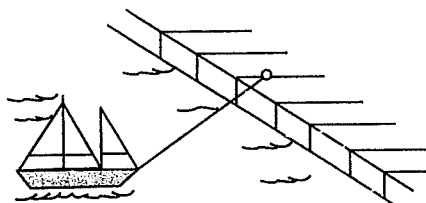


Figure 2

- (A) 
 (B) 
 (C) 
 (D) 
 (E) 
6. At a party, there are exactly 3 times as many adults as children. Which of the following could be the total number of people at this party?
- (A) 14
 (B) 16
 (C) 21
 (D) 25
 (E) 29
7. Using a pair of scissors, which of the following can be made from a 20 cm by 28 cm rectangular sheet of paper by 1 straight cut?
- I . Triangle
 II . Square
 III . Rectangle
- (A) I only
 (B) II only

- (C) III only
 (D) I and II only
 (E) I , II and III

8. According to the graph in Figure 3, the average number of students taking the swimming class during the four months of March through June was _____.

NUMBER OF STUDENTS TAKING
SWIMMING CLASS

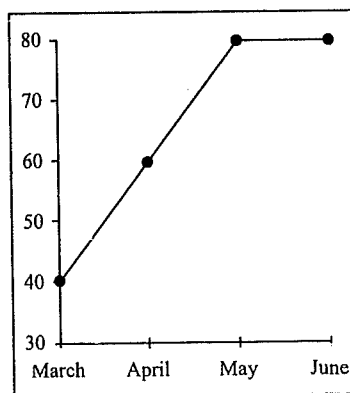


Figure 3

- (A) 50
 (B) 55
 (C) 60
 (D) 65
 (E) 70

Questions 9-10 refer to the following definition.

For all real numbers n and r , $n \clubsuit r = (n -$

$$1) - \frac{n}{r}.$$

EXAMPLE: $5 \clubsuit 3 = (5 - 1) - \frac{5}{3} = 4 - \frac{5}{3} =$

$$2\frac{1}{3}.$$

9. What is the value of $6 \clubsuit 2$?

- (A) 1
 (B) 2
 (C) 6
 (D) 8
 (E) 16

10. If $Q \clubsuit 2 = 3$, then $Q =$ _____.

- (A) 10
 (B) 8

- (C) 6
- (D) 4
- (E) 2

11. Justine bought a comic book at \$6 above the cover price. A year later she sold the book for \$8 less than she paid. At what price did Justine sell the book?
- (A) \$14 below the cover price
 - (B) \$2 below the cover price
 - (C) The cover price
 - (D) \$2 above the cover price
 - (E) \$14 above the cover price

Questions 12-13 refer to the graph in Figure 4.

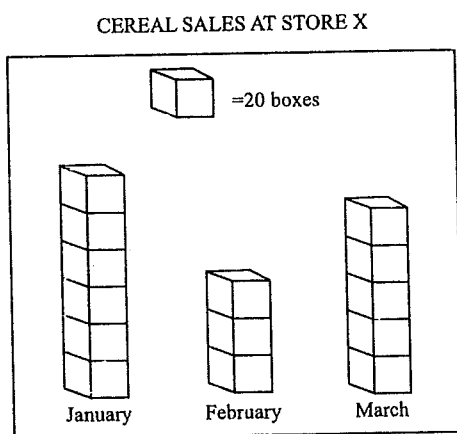


Figure 4

12. How many fewer boxes of cereal were sold in February than in January?
- (A) 2
 - (B) 3
 - (C) 20
 - (D) 40
 - (E) 60
13. The number of boxes sold in March was how many times the number of boxes sold in February?
- (A) 2
 - (B) $1\frac{2}{3}$
 - (C) 3
 - (D) 40
 - (E) 60

14. Team A has 5 times as many losses as it had ties in a season. If Team A won none of its games, which could be the total number of games it played that season?
- (A) 10
 - (B) 15
 - (C) 18
 - (D) 21
 - (E) 26

15. Figure 5 contains rectangles and a triangle. How many different rectangles are there in Figure 5?

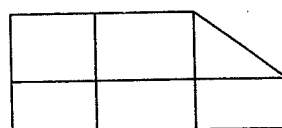


Figure 5

16. Which of the following is NOT less than $\frac{1}{4}$?
- (A) $\frac{2}{9}$
 - (B) $\frac{3}{14}$
 - (C) $\frac{14}{64}$
 - (D) $\frac{19}{70}$
 - (E) $\frac{27}{125}$
17. In Figure 6, the sides of triangles ABC and FGH, and of squares BCFE and CDGF, are all equal in length. Which of the following is the longest part from A to H?

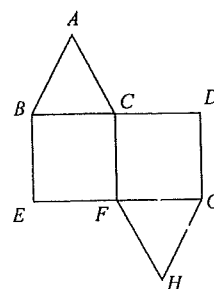


Figure 6

- (A) $A - B - C - F - H$
(B) $A - B - E - F - H$
(C) $A - C - D - G - H$
(D) $A - B - E - G - H$
(E) $A - C - F - G - H$
18. If $5\frac{1}{3} \times (5 - x) = 0$, then what does x equal?
(A) 0
(B) 5
(C) $5\frac{1}{3}$
(D) 14
(E) It cannot be determined from the information given.
19. Which of the following is closest to 1.08?
(A) 12
(B) 2.2
(C) 1.9
(D) 1.1
(E) 1
20. If X is greater than 25, then $\frac{1}{5}$ of X must always be _____.
(A) less than 5
(B) equal to 5
(C) greater than 5
(D) equal to 45
(E) less than 45

SECTION 1: WRITING THE ESSAY

Who teaches you to walk? Who teaches you to speak? It's obvious that in most cases the earliest teachers people have are their parents, and parents are generally most concerned about the development of their children. However, it is not completely true to say that parents are the best teachers.

Firstly, I would say that parents are not professional teachers. As normal individuals, some parents more or less have some bad habits. Even though parents almost instinctively devote themselves to cultivating their offsprings, the outcome might turn out to be disappointment, for all children tend to unconsciously or subconsciously copy everything including bad ones from their parents. Another deficiency of parents as teachers is the fact that most parents are lack of common sense of education. All too often we observe some parents tend to pursue their cherished but failed dream by forcing their children to develop in a prearranged direction. Furthermore, once our parents get older, they become more conservative and cannot always be objective in regard to modern trends and fashions. Thus we need to take their advice with caution during that period.

In addition, some parents could be good teachers. When children are in the preliminary school, it is not surprising that parents are perhaps capable of teaching their children almost every subject even better than professional

teachers in the school. But the situation will not last long. We live in a world where knowledge is accumulated by multiplying and at the same time becomes more and more specialized. Therefore, to be a professional in a certain field today takes much longer time than has ever been before. No parent is able to be professional in all fields, though they might be experts in one or more fields. Wise parents often release rather than charge their children as early as possible. They are aware of the possibility outside the family.

Parents may, however, help their children much more than do good teachers. Most parts of children education are virtually beyond teachers' reach. It is parents that supplement. Psychology studies have shown us that parents' love sometimes has astonishingly magic power to their children. Albert Einstein's mother and that of Forest Gump are both good examples. On the other hand, parents might do their children harm more than do bad teachers as well. The natures of those children whose parents have divorced are often severely distorted. In a word, it is rather superficial to simply say that parents are the best teachers.

SECTION 2: VERBAL REASONING

1. D

Harsh means rough or overly demanding—in other words, severe, (D). A harsh penalty, for example. One can be angry.

(A), without being harsh; these words are not synonyms.

2. B
Indicate means to show, state, or point out.

3. A
Bleak means desolate and barren, or cheerless, (A). "We camped out in a bleak wilderness."

4. A
Secure means free from danger, or safe.

5. E
Alien means foreign, or strange.

6. E
Chronic means frequently occurring, habitual, or persistent, (E), as in a "chronic cough".

7. B
To quench a thirst means to slake or satisfy it, (B).

8. D
Severe, means harsh, overly demanding, or extreme, (D). Severe cold leaves you frozen, (E), but severe and frozen are not synonyms. Don't just think associatively; look for the word that's closest in meaning to the word stem.

9. E
When thieves ransack an apartment, they turn it upside down looking for things to steal. In other words, to ransack is to search thoroughly, (E).

10. D
The summit is the top of something, as in the summit of a mountain peak, which makes (D) correct.

11. C
An alias is an assumed name. Superman's alias is Clark Kern.

12. A
To have a phobia is to have great fear or anxiety about something. To have a phobia of snakes is to have a fear of snakes.

13. A
To propel something is to thrust it forward, or to project it. A strong wind can propel a ship through the water. Note that *project* is used as a verb here, not as a noun. Your answer must always be the same word form as that of the word stem.

14. E
A headstrong person is stubborn and doesn't like to listen to anyone else. A headstrong horse may refuse to walk when you ask it to.

15. B
To coddle something is to treat it gently or to baby it. Too much coddling of a child, for example, may cause him to be insufficiently prepared to face the harsh realities of life.

16. C
To be keen is to be very smart or sharp. A keen mind is good at solving problems.

17. B
If something is murky, it is dark and mysterious, or gloomy. Murky water is hard to see through.

18. D
The word trying isn't used here as a verb as you might expect. It is used as an adjective. A trying situation is very demanding or strenuous. A trying hike, for example, will make you very tired. Always look at the root word to see what word form you need to use.

19. E
If you adhere to a decision, you stay with it, or stick to it. Adhesive tape is sticky tape—it adheres.

20. E
An enigmatic person is difficult to figure out—she is mysterious. Many people thought Howard Hughes was enigmatic because so little was known about him.

21. C
Clandestine means surreptitious or secret, usually for some illicit reason or purpose. The married man had clandestine meetings with his mistress.
22. A
Bounteous means plentiful, generous, and abundant. At the end of a favorable growing season, we had a bounteous harvest.
23. E
To diverge is to move off in different directions or to become different. Parallel lines do not diverge.
24. D
Benign means good-natured, kindly, or harmless. When applied to a tumor, benign means harmless as opposed to malignant, which implies life-threatening. The Pope faced his audience with a benign smile.
25. B
A caucus is a meeting of people with similar goals, usually a group of people within a larger group. The Black Congressional caucus meets periodically to discuss minority issues.
26. D
To disseminate is to scatter widely. It is important that we disseminate information about the transmission of AIDS.
27. D
Chagrin is embarrassment or humiliation. The bettor was chagrined that the horse he had praised so loudly came in last.
28. B
Valor is high value, courage, or bravery. The soldiers defended the Alamo with valor.
29. C
Nonchalant means without enthusiasm or indifferent. The student was so nonchalant about her award that she did not even tell her parents.
30. D
A liaison is a linking up or a connection. The liaison of allies from a number of countries led to defeat of the enemy forces.
31. C
This is a part-to-part relationship. Both subject and predicate are parts of a sentence; both senator and representative are parts of the congress. (E) is an incorrect answer because a senator's relationship to congress is that of part-to-whole.
32. E
This is an association relationship. Pungent is an adjective used to describe a degree of odor. Intense is an adjective used to describe a degree of emotion.
33. A
The analogy is based on synonyms.
34. A
All other four terms are synonyms.
35. D
The relationship is one of association or characteristic. Exuberant is an adjective used to describe mood; adroit is an adjective used to describe movement.
36. D
Opposition leads to defiance; challenge leads to exertion. The actual statement of the analogy is effect and its cause.
37. B
This is a true cause-and-effect relationship. Food promotes nutrition; light promotes vision. Light does not promote any of the other choices.
38. A
The relationship is that of true antonyms. The false choices are synonyms or partial antonyms, making this a very difficult analogy question.

39. E
This antonym relationship is easier to see at a glance.
40. D
This may be either a part-to-whole relationship or an analogy of degree. Either a comment is part of a speech and a note is part of a letter or a comment is much shorter than a speech and a note is much shorter than a letter.
41. E
Something that is redundant, by definition, is not necessary. Something that is vague, by definition, is not explicit. Something that is desirable (B) is not necessarily pretty.
42. C
Coral is a shade of pink, the way aquamarine is a shade of blue. Rosy (D) is another shade of pink, while bland (A) means plain.
43. D
A fan by definition circulates air, and a heart circulates blood.
44. A
A palette is an assortment of colors, and a collage is an assortment of images.
45. B
A salutation is an introductory greeting in a letter, as an introduction is an introductory greeting in a book. A postscript (D) occurs at the end of a letter.
46. B
A quill is a porcupine's means of defense just as a scent is a skunk's means of defense. Wings (C) are a duck's means of flight.
47. A
A caterpillar is an animal that turns into a butterfly. A tadpole is an animal that turns into a frog.
48. D
A budget is used to plan the cost of a project; the way a blueprint is used to plan the design of a project.
49. E
The job of a juror is to judge. The job of a soothsayer is to predict. A soothsayer predicts the future.
50. D
A buffer is used to prevent an impact, as an antiseptic is used to prevent an infection. A bandage (B) may help to heal a wound, but it will not prevent it, which is the bridge we need.
51. C
The relationship is possession. Someone who is astute possesses acumen. Therefore, only choice (C) has the same relationship. Someone who is diplomatic possesses a great deal of tact.
52. A
The relationship is one of object to its function; a judge would by definition adjudicate. A champion is a person who by definition would defend a matter.
53. E
The relationship is word to antonym; if something is imperceptible, a person cannot notice it. The only answer that is an antonym is choice (E); if something is intangible, a person cannot touch it.
54. A
The relationship is object to its function. A claustrophobic by definition hates enclosure. The only answer that is object to function is choice (A); a misogynist is a person who by definition dislikes women.
55. B
A hammer is a tool used by a carpenter; an awl is a tool used by a cobbler. Choice (A) reverses the order of tool and user.

56. E

The relationship is cause to effect. One who is gullible is easy to bilk. The only cause-to-effect relationship is choice (E); if you are docile, it would be easy to lead you.

57. C

The relationship is word to definition. An overblown situation is exaggerated. Choice (C) has the same relationship; a warrant is by definition justified.

58. B

Somebody ruthless has no pity, and somebody bewildered has no comprehension.

59. C

The relationship is action of object. A clown acts zany. A show off is a person whose actions could aptly be described as flamboyant.

60. A

A horn is blown and a harp is plucked to make music.

SECTION 3: QUANTITATIVE REASONING

1. A

Multiples of 3 include: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, etc. Comparing these with the answers provided, notice that the number 20 is not a multiple of 3.

2. A

Substitute 8 for m . $* 8 = 10(8) - 10 = 80 - 10 = 70$.

3. A

If $* m = 10m - 10$ and $* m = 100$, then $10m - 10 = 100$.

Solve for m : $10m = 110$, $m = 11$.

4. C

The total discounted amount is \$4 or $(\$12 - \$8)$. The original amount $\times$ the discounted percent = the total discounted amount.

$\$12 \times$ discounted percent = \$4.

The discounted percent = $\frac{4}{12} = \frac{1}{3} \approx 33\%$.

5. A

The number of left-handed members is equal to $21 - 14$, or 7. The ratio of left-handed to right-handed is $7 : 14$, which simplifies to $1 : 2$.

6. E

Let the five consecutive integers be: x , $x + 1$, $x + 2$, $x + 3$, and $x + 4$.

Then $x + x + 1 + x + 2 + x + 3 + x + 4 = 55$;

$5x + 10 = 55$; $5x = 45$; $x = 9$

Since the least of the five integers is 9, the greatest is $9 + 4$, or 13. $13^2 = 169$.

7. D

When multiplying like values raised to a power, add the exponents.

$$2^2 \times 2^3 \times 2^4 = 2^{2+3+4} = 2^9$$

8. D

The area of a square is equal to the (length of the side)², or L^2 .

$$121s^2 = L^2$$

$$\sqrt{121s^2} = \sqrt{L^2}$$

$$11s = L$$

9. D

Set up a ratio for this problem and solve: let x represent the number of books purchased with 7 dollars.

$$\frac{5}{d} = \frac{x}{7}$$

$5 \times 7 = d \times x$ (using cross-multiplication)

$$\frac{35}{d} = x$$

10. C

Since integers can be both positive and negative, and the product of a positive and negative integer is always negative, choice (E) must be false. Looking further at the answers, notice that choices (B)

and (C) are opposites of one another. Therefore, one of those must be true and the other false. Substitute two numbers for g and h and see which of the two is true. If $g = -4$ and $b = 5$, $g \times h = -4 \times 5 = -20$.

Since -20 is even, choice (C) is correct.

11. C

Finding the reciprocal of a number involves flipping its numerator with its denominator.

So the reciprocal of $\frac{5}{6}$ is simply $\frac{6}{5}$.

12. B

There are at least two ways to solve this problem. If you recognized that $\frac{1}{8}$ is half of $\frac{1}{4}$, $\frac{1}{8}N$ must be half of two, or one. Alternately, you could have solved the first equation for the value of N , and then plugged into the second expression.

$$\frac{1}{4}N = 2$$

$$N = 8$$

$$\frac{1}{8}N = \frac{1}{8} \times 8 = 1$$

13. B

There are 10 triangles. Four of these are shaded. So $\frac{4}{10} = \frac{2}{5}$ of all the triangles are shaded.

14. D

The average of a group of consecutive integers is equal to the middle term. Since you're told that the largest of the five integers is 11, they must be seven, eight, nine, ten and 11. So the middle term and average is nine, (D).

15. A

The fastest way to solve this question is to simplify by canceling terms, and then to multiply.

$$\begin{aligned} \frac{2}{3} \times \frac{3}{6} \times \frac{1}{4} &= \frac{2}{3} \times \frac{1}{2} \times \frac{1}{4} \\ &= \frac{1}{3} \times \frac{1}{1} \times \frac{1}{4} \\ &= \frac{1}{12} \end{aligned}$$

16. D

In five days, a cat sleeps $5\left(\frac{3}{5}\right) = 3$ full days.

17. A

To determine if a number is divisible by 9, the sum of the digits in that number will equal a number divisible by 9. The sum of the digits in 2,042 is $2 + 0 + 4 + 2 = 8$. By adding 1 to this number, the sum of the digits will equal 9 and therefore be divisible by 9.

18. E

6 girls make 3 projects each for a subtotal of $6 \times 3 = 18$.

7 boys make 4 projects each for a subtotal of $7 \times 4 = 28$.

The total number of projects made is $18 + 28 = 46$.

19. E

The area of the rectangle is $l \times w = 10 \times 4 = 40$.

The area of the triangle is $\frac{1}{2}bh = \frac{1}{2}8h$.

Since the areas are equal, set the equations equal to each other to determine the height of the triangle.

$$\frac{1}{2}bh = 40$$

$$4h = 40$$

$$h = 10$$

20. A

Substitute 8 for r and 4 for s .

$$(8 \times 4) - (8 + 4) = 32 - 12 = 20$$

21. A

$$(5\clubsuit 4) = \frac{33}{L}$$

$$(5\clubsuit 4) = (5 \times 4) - (5 + 4) = 20 - 9 = 11$$

$$11 = \frac{33}{L}$$

$$L = \frac{33}{11} = 3$$

22. B

To score an average of 91 on 4 exams, the total of the 4 exams added together must be $91 \times 4 = 364$. On her first 3 exams, Jesse has scored a total of $89 + 87 + 92 = 268$. Therefore, she needs 96 points on her last exam.

23. E

$$3x + 8 = 10x - 13$$

$$3x = 10x - 21$$

$$-7x = -21$$

$$x = \frac{-21}{-7} = 3$$

24. E

25% expressed as a decimal is 0.25, so you can either calculate the discount $(0.25)(75) = 18.75$ and subtract this from the original price of \$75, getting \$56.25, or you can calculate the final price directly. It will be 75% of the original price $(100\% - 25\% = 75\%)$, $(0.75)(75) = 56.25$.

25. E

Use the formula $A = \frac{1}{2}bh$.

$$150 = \frac{1}{2}(15)h$$

$$\frac{150}{7.5} = \frac{7.5h}{7.5}$$

$$20 \text{ inches} = h$$

SECTION 4: READING COMPREHENSION

Passage 1

1. C

As you were reading the passage, you should have tried to summarize the point. The text describes Mr. Saint Helens, its eruption, and what the eruption produced.

(E) is far too broad, and (B) and (D) are too narrow and detailed. The information in (B) is not discussed.

2. E

Lines 2-4 state, "The explosion was not unexpected; the earth's crust had shaken for weeks beforehand, providing people in the surrounding area with plenty of advance warning." In other words, the shaking of the crust warned people of the impending volcano; "advance", therefore, means ahead of time. While "moving forward" (A) is one definition for advance, it is not the meaning that works in this context.

3. D

You need to identify the answer choice that contains information not mentioned in the passage. If something leaps out at you immediately, there's a good chance that it's the answer. If not, eliminate all answer choices that are mentioned in the passage until one remains. Only tidal waves isn't mentioned.

4. A

Fluid lava, in the question stem, is thin, flowing lava. The text states, "thick lava is easily outrun because it moves extremely slowly". Since thin and thick lava would naturally have opposite characteristics, we can assume that thin lava is not easily outrun—(A).

5. C

The author isn't speaking in praise of something, nor is he trying to persuade his readers of a certain point of view. His tone is informative and balanced, (C) is the best choice.

6. D

The author offers that phrase as a contrast to the next sentence, "In spite of these danger signals, no one was prepared for the extent of the blast." (D) is correct because these lines, to paraphrase, are

saying that people were prepared and knew about the blast, but no one expected such a major explosion, which the author goes on to discuss. (E) might be true, that experts were not seeing fluid lava in the blast, but it does not have to do with the phrase in question.

Passage 2

7. E

Hope is "the thing with feathers" in stanza 1, and "the little bird" in stanza 2, so (E) is correct. (A), (B) and (D) are trials and dangers that the bird/hope faces; (C) is what the bird sings.

8. E

Paraphrase the final stanza: "I've heard the bird of hope in far-off places, and it never asked me for anything." This points to (E) as correct. (C) is incorrect because the poem says nothing about a world without hope, or preserving hope at all costs. (D) summarizes the second stanza, not the third. (B) takes the poem literally to the point of absurdity; the "crumb" line doesn't mean that the bird is always hungry, but rather that it gives its song of hope freely. And (A) is incorrect because, according to the poet, hope is always present; no great effort is required to make it so.

9. A

Remember you're dealing with metaphor. This poem isn't about a bird; it's comparing hope to a bird that never stops singing. The statement that it "kept so many warm" means that hope has given comfort to a lot of people, and (A) is correct. (B) and (C) take the poem literally. (E) is pessimistic where the poet is optimistic about hope, and (D) implies that hope only works in the worst of situations. But the poet is saying that hope is helpful even in the worst of situations.

10. D

The poet likens hope to a bird that thankfully, is always there to help people, never asking anything in return. Her tone is one of gratitude, making choice (D) correct. (A) is the closest character, but "respectful" is too formal, too distancing. Hope in this poem isn't a great person or awesome display of nature, it's a little bird "that perches in the soul".

11. E

Figure out what the poet is saying in the lines "sore" appears in. The poet is saying only the worst of storms could discourage the bird. The only choice that comes close to meaning "worst" is "severe" (E).

Passage 3

12. B

Choice (D) is a theory that only some scientists believe to be true. Choices (A) and (E) are about part of the passage's content, but they do not describe the whole passage. Choice (A) is too general; the passage deals with a specific scientific discovery.

13. D

The passage states the radiation frequency "decreases", so choices (B), (C) and (E) are incorrect. Choice (A) is incorrect because "collapse" does not mean the same as "decrease".

14. E

The passage states the matter was "tightly compressed". Choice (B) is incorrect, because while the matter may be expanding after the Big Bang, it was not expanding originally. Choice (C) means the opposite of "tightly compressed", so it is incorrect. Choices (A) and (D) refer to what may have happened after the Big Bang, so they are incorrect.

15. D

The passage states some scientists think the universe will continue to expand, while others think it will collapse. Since both views are given, choices (A) and (B) are incorrect. Choices (C) and (E) are contradicted by the passage.

16. B

This is indicated in the first sentence of the passage. That sentence also contradicts choice (D), and information in the passage about the 1965 discovery also suggests that the theory has been proven, so choice (E) is incorrect. Choice (C) is about the Doppler effect, not the Big Bang, so it is incorrect. Choice (A) is about evidence for the theory, not what the author thinks about the theory.

Passage 4

17. A

It covers the main points of the passage. Choices (B) and (E) are factual examples presented in the passage and thus do not deserve to be called the main ideas. Choices (C) and (D) can be inferred from the passage, but, again, these facts are not large enough to cover the whole passage.

18. A

It covers the way cities use their resources. Choice (D) is very close and is one part of a conservationist's view, as is choice (C). Choices (B) and (E) are concepts interesting to conservationists, but they are not as central or as broad as choice (A).

19. B

It is clearly stated in the fourth paragraph. Choices (C) and (D) are facts in the passage unconnected to the question, and choices (A) and (E) are inappropriate.

20. D

This factor was most important in the "early days of town building", and other factors mentioned above have taken precedence.

21. C

Every paragraph details examples of how the environment affects the growth of cities. Choice (E) is a general statement that affects city growth, but it is not the focus of this passage. Choice (B) mentions cities in the passage, but this detail does not make it worthy of becoming the title.

Passage 5

22. A

See the first sentence.

23. B

See the next-to-last sentence of the first paragraph.

24. E

Lines 14-16 provide this information.

25. A

You certainly can infer this from the last sentence of the second paragraph.

26. C

This is the author's meaning in the last sentence, in which the author states that the tall tales are close to fact.

Passage 6

27. C

"Just stopped by..." is quite a matter-of-fact way of speaking.

28. C

The raised eyebrows of the first sentence of the second paragraph imply disbelief.

29. C

Mr. Holter had a caravan of animals, was in New York on his way to Dayton, Ohio, and actually lived in Anaheim, California. You can infer that he made his living traveling and showing his animals.

Passage 7

30. E

Look back to lines 6-9, where George's single tax proposal (the idea The Landlord's Game was meant to teach) is described as aiming to weaken the ability to form monopolies, encourage equal opportunity, and narrow the gap between rich and poor.

31. B

Lines 30-32 explains that Darrow fraudulently claimed to be the game's inventor (he was introduced to it before he got a patent as its inventor). Parker Brothers bought his patent believing that it was genuine, meaning that they believed Darrow's falsehood.

32. A

The answer is in line 22. Having the game and its rules spread by word of mouth means it will alter slightly from one person to another.

33. B

To imply means to hint at, rather than to state outright. The other choices are all directly stated in the paragraph, while (B) is implied.

34. A

Lines 39 and 40 say she sold it to remain true to her original intent, which was, according to line 11, to spread the word about George's single tax theory.

35. E

Lines 36 and 37 say that Parker Brothers found out that Darrow wasn't the inventor, but nowhere in the passage does it say how they learned the information.

Passage 8

36. A

A Roman Numeral question. The only true statement, according to the passage,

is statement I: acupuncture was first practiced in China, but is now practiced in many Western countries as well. Statement II is false; according to the first sentence of paragraph 2, acupuncture was not used to control pain during surgery until the 1970s. And the final sentence of the passage disputes statement III: the mechanism for its effectiveness "is still a mystery".

37. C

The author tells us what acupuncture involves, what ancient Chinese philosophy it's based on, and how it recently spread to the West. The passage is primarily about the historical and philosophical background of acupuncture, (C). (E) is not mentioned, and (A) focuses too narrowly on the first paragraph. (B) is too general.

38. E

Paragraph 1 states that acupuncture is based on the ancient Chinese belief that "human beings are miniature versions of the universe" and that the same forces control nature and health. Yin and yang are not Chinese gods, (C), they're principles. And contrary to (B), Western countries have not "totally changed" the Chinese philosophy of health and disease. They may have ignored it or failed to understand it, but they did not change it.

39. A

Yin and yang have "an opposite but complementary effect on each other... When they are in balance, the body maintains a constant, normal state." (E) names an example of how the two principles operate, not what they represent. (C) wrongly states that one principle is healthy and the other unhealthy, but it's a balance of both that maintains health, and an imbalance that results in sickness.

40. C

When yin and yang are in balance, the body is healthy, but when they're out of balance, disease occurs. These two forces work together, or complement, each other. The claim in (E) was made by ancient Chinese philosophy, and there is no actual proof in the passage for (D). The author does not mention any part of the body that isn't influenced by acupuncture, so (B) is incorrect.

SECTION 5: MATHEMATICS ACHIEVEMENT

1. E

The perimeter of a polygon is the sum of the lengths of its sides. Label each of the sides with a value of 3 and add.

2. D

(C) can be immediately eliminated because it is an even integer and we are looking for an odd. Since D is an odd integer between 4 and 11, D must be one of the integers 5, 7, or 9. Since D is also between 7 and 18, D must be one of the integers 9, 11, 13, 15, or 17. The only choice which meets both requirements is (D), 9. (D) is correct. Notice that (E), 11, is not between 4 and 11.

3. C

Gary and Paul have a total of $20 + 18 = 38$ operas put together. This number is equal to the number of operas that only Gary has plus the number of operas that only Paul has plus twice the number of operas that they both have in common. The number that they have in common was counted twice. It was counted once in the number of operas that Gary has and once in the number of operas that Paul has. Since the number of operas that they have in common should only be counted once,

subtract the 4 they have in common from 38 and our result is 34 different operas.

4. C

Solve for G by multiplying both sides by the reciprocal of $\frac{1}{6}$: $G = 18 \times \frac{6}{1} = 108$.

Substitute 108 for G into the expression

$\frac{1}{3}G$ and you will get $\frac{1}{3}G = \frac{1}{3} \times 108 = 36$.

5. A

The boat can swing out and around as far as the line extends or the wind can push it anywhere within this semicircle. If you chose (B), you assumed the boat could float onto the dock. You want the choice indicating all the points of the semicircle shaded, which is (A).

6. B

Let x = the number of children. Hence, $3x$ = the number of adults. The total number of people is the $x + 3x = 4x$. The key to solving this is keeping in mind that x must be an integer. It is because of this that $4x$ must be a multiple of 4. Therefore the answer must be a multiple of 4. (B), 16, is correct.

7. E

Draw a figure! With a diagonal cut, triangles can be created. By cutting to decrease the length 28 of the rectangle by 8 with a cut parallel to the sides of length 20, a square can be created, and cutting anywhere parallel to any side of the original rectangle, a rectangle with new dimensions can be created.

8. D

We must note how many students were in the class each month. March = 40, April = 60, May = 80, and June = 80. Use the formula, Average = $\frac{\text{Sum of the terms}}{\text{Number of terms}}$. Here,

the average is $\frac{40 + 60 + 80 + 80}{4} = \frac{260}{4} = 65$.

9. B

The value of n is 6 and the value of r is 2.

Simply substitute these values into the equation which defines the symbol: $6\clubsuit 2 =$

$$(6-1) - \frac{6}{2} = 5 - \frac{6}{2} = 5 - 3 = 2, (B).$$

10. B

Here, you are given $n = Q$ and $r = 2$.

Use the equation given in the definition to set $Q\clubsuit 2$ equal to 3 and solve for Q :

$$(Q-1) - \frac{Q}{2} = 3. \text{ First, eliminate the denominator by multiplying both sides by } 2: 2(Q-1) - Q = 6. \text{ Then, distribute the 2 through the parentheses: } 2Q - 2 - Q = 6. \text{ Third, isolate the } Q: Q = 8, (B).$$

11. B

Begin with \$6 + cover price - \$8 and simplify it. This can be simplified to cover price - \$2, which means \$2 below the cover price. (B) is correct.

12. E

Note here that each cube = 20 boxes.

February has three cubes less than January, hence $3(20) = 60$ boxes less.

13. B

In March, 5 cubes were sold and in February, 3 cubes were sold. Thus, in

March, the number of boxes sold was $\frac{5}{3} =$

$1\frac{2}{3}$ times the number of boxes sold in

February. It is not necessary to perform the calculation using the fact that 20 boxes are represented by each cube.

14. C

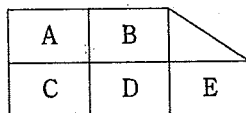
Let x = the number of ties for Team a ; keep in mind that x is an integer here.

Thus, Team a had $5x$ losses. Adding the losses and ties (there were no wins), the number of games the team played was $x + 5x = 6x$. Thus, the correct answer choice must be a multiple of 6

(because x is an integer). Only (C), 18, is a multiple of 6.

15. E

In order to make the discussion simpler, the five rectangles which are in the figure to begin with have been labeled.



Systematically count the different rectangles in the figure. There are the 5 rectangles in the figure to begin with, which we will call basic rectangles. Next, let's count the number of rectangles that are made up of 2 basic rectangles. Rectangles made up of 2 basic rectangles can be formed from basic rectangles A and B, C and D, D and E, A and C, and B and D. There are 5 rectangles made up of 2 basic rectangles. Next, let's count the number of rectangles that can be made up of 3 basic rectangles. There is just one such rectangle. This is the rectangle which is made up of the 3 basic rectangles at the bottom, rectangles C, D and E. Next, let's count the number of rectangles which can be made up of 4 basic rectangles. There is just one such rectangle. This is the rectangle which is made up of basic rectangles A, B, C and D. There are no other rectangles which can be made up of basic rectangles. There is a total of $5 + 5 + 1 + 1 = 12$ different rectangles in the figure.

16. D

We are looking for the fraction that is NOT less than $\frac{1}{4}$, that is, a fraction that

is greater than or equal to $\frac{1}{4}$. (D) is

correct because $\frac{1}{4} = \frac{19}{19 \times 4} = \frac{19}{76}$ is less

than $\frac{19}{70}$ because $\frac{19}{70}$ has a smaller denominator. Looking at the other choices, since $\frac{2}{8} = \frac{1}{4}$, $\frac{2}{9}$ must be less than $\frac{1}{4}$ (since 9 is a greater denominator). Since $\frac{3}{12} = \frac{1}{4}$, $\frac{3}{14}$ must be less than $\frac{1}{4}$ (due to the greater denominator 14). Reducing $\frac{14}{64}$, we get $\frac{7}{32}$ and since $\frac{8}{32} = \frac{1}{4}$, $\frac{14}{64} = \frac{7}{32}$ is less than $\frac{1}{4}$. Since $\frac{1}{4} = \frac{27}{27 \times 4} = \frac{27}{108}$, then $\frac{27}{125}$ is less than $\frac{27}{108} = \frac{1}{4}$.

17. D

Begin by labeling each side 1. Using the answer choices, count the lengths of 1 in the path: (A) = 4, (B) = 4, (C) = 4, (D) = 5 and (E) = 4. (D) is the longest path.

18. B

No long calculation is needed here. In order for a product of numbers to equal 0, at least one of the numbers must equal zero. Since $5 - \frac{1}{3}$ is not 0, the other factor, $5 - x$, must equal 0. So $5 - x = 0$, and $x = 5$.

19. D

Since 1.08 has 2 places after the decimal point, write each answer choice with 2 places after the decimal point. (A) and (B) are more than 1.00 away from 1.08. (C), 1.90, is more than 0.8 away from 1.08, (D), 1.10, is 0.02 away from 1.08, and (E), 1.00, is 0.08 away from 1.08.

20. C

Write out the given inequality: $X > 25$.

Next multiply both sides by $\frac{1}{5}$ (or divide both sides by 5). We now have $\frac{1}{5}X >$

$\frac{25}{5}$ and $X > 5$, (C).