SECTION 1
Time: 30 Minutes
60 Questions

This section includes two different types of questions: synonyms and analogies. There are directions and a sample question for each question type.

Directions: Each of the following questions consists of a word in capital letters followed by five words or phrases. Select the one word or phrase that means most nearly the same as the word in capital letters.

Sample Question:

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ESSENTIAL:
(A) dire
(B) confusing
(C) vital
(D) expert
(E) honest

Correct Answer: C
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1. NOVICE:
   (A) burden
   (B) agreement
   (C) beggar
   (D) beginner
   (E) expression

2. FABRICATE:
   (A) stitch
   (B) fasten
   (C) falsify
   (D) deter
   (E) decorate

3. FRIENDLY:
   (A) congenital
   (B) amiable
   (C) sanctimonious
   (D) ambivalent
   (E) responsive

4. GENRE:
   (A) proposal
   (B) category
   (C) purpose
   (D) principle
   (E) generation

5. SUMMIT:
   (A) conference
   (B) valley
   (C) essence
   (D) nadir
   (E) outline

6. DEFTLY:
   (A) wilfully
   (B) closely
   (C) quickly
   (D) randomly
   (E) skillfully

GO ON TO THE NEXT PAGE.

7. PROSPER:
   (A) accomplish
   (B) strive
   (C) affect
   (D) gather
   (E) thrive

8. SPURN:
   (A) cross
   (B) return
   (C) betray
   (D) reject
   (E) hinder

9. COMPLIMENTARY:
   (A) secondary
   (B) free
   (C) charming
   (D) attractive
   (E) matched

10. VISAGE:
    (A) encounter
    (B) station
    (C) face
    (D) bandage
    (E) wound

11. RESPITE:
    (A) pause
    (B) presumption
    (C) recluse
    (D) blockage
    (E) susceptibility

12. REGRETFUL:
    (A) bewildered
    (B) credulous
    (C) desultory
    (D) contrite
    (E) dubious

13. FRUGAL:
    (A) inadequate
    (B) shrewd
    (C) economical
    (D) balanced
    (E) equitable

14. IMPLY:
    (A) suggest
    (B) implore
    (C) greet
    (D) reminisce
    (E) appeal

15. INCITE:
    (A) insist
    (B) dispel
    (C) maintain
    (D) assert
    (E) provoke

16. MEAGER:
    (A) paltry
    (B) stunted
    (C) timid
    (D) sloppy
    (E) frigid

17. PREDICTION:
    (A) predecessor
    (B) forecast
    (C) predicament
    (D) prejudice
    (E) display

18. FACET:
    (A) goal
    (B) endeavor
    (C) tactic
    (D) aspect
    (E) ambition

19. ABSOLVE:
    (A) admonish
    (B) accede
    (C) opine
    (D) clear
    (E) affirm

20. DESTROY:
    (A) inveigh
    (B) subvert
    (C) rescind
    (D) sanction
    (E) abjure

GO ON TO THE NEXT PAGE.

21. MOURN:
    (A) replete
    (B) whimper
    (C) argue
    (D) disapprove
    (E) grieve

22. POISONOUS:
    (A) dangerous
    (B) hurtful
    (C) toxic
    (D) devious
    (E) ruthless

23. APLOMB:
    (A) omen
    (B) ascent
    (C) epitome
    (D) confidence
    (E) atonement

24. CORROBORATION:
    (A) confirmation
    (B) announcement
    (C) bulletin
    (D) tribulation
    (E) ordeal

25. ERRATIC:
    (A) mistaken
    (B) immaculate
    (C) unpredictable
    (D) opportune
    (E) inadvertent

26. CREDIBLE:
    (A) languid
    (B) believable
    (C) forthright
    (D) fallible
    (E) enviable

27. ABSCOND:
    (A) abolish
    (B) choose
    (C) leave
    (D) remove
    (E) steal

28. CALM:
    (A) rest
    (B) inspire
    (C) exalt
    (D) soothe
    (E) commend

29. IRRITABLE:
    (A) voluble
    (B) timorous
    (C) transitory
    (D) turgid
    (E) petulant

30. TRAVESTY:
    (A) disaster
    (B) mockery
    (C) misfortune
    (D) adage
    (E) opinion

GO ON TO THE NEXT PAGE.

Directions: The questions that follow ask you to find relationships between words. For each question select the answer choice that best completes the meaning of the sentence.

Sample Question:

> Swim is to pool as
> (A) fork is to plate
> (B) sweep is to broom
> (C) clean is to kitchen
> (D) sleep is to bed
> (E) trot is to horse
>
> Correct Answer: D
> Choice D is correct because a pool is a place to swim just as a bed is a place to sleep.

31. Safe is to dangerous as
    (A) taste is to smell
    (B) bland is to spicy
    (C) dry is to fire
    (D) multiplication is to divide
    (E) lazy is to exercise

32. Star is to sky as
    (A) mountain is to valley
    (B) cloud is to sun
    (C) fish is to ocean
    (D) dream is to sleep
    (E) fit is to shoe

33. Cut is to wound as
    (A) storm is to snow
    (B) brick is to building
    (C) drink is to thirst
    (D) save is to money
    (E) cry is to tears

34. Camera is to picture as
    (A) breeze is to fan
    (B) paint is to frame
    (C) brush is to hair
    (D) phone is to call
    (E) horse is to gallop

35. Lumens is to brightness as
    (A) velocity is to speed
    (B) decibel is to volume
    (C) pint is to liquid
    (D) mile is to kilometer
    (E) measure is to depth

36. Book is to writer as
    (A) needle is to doctor
    (B) cavity is to dentist
    (C) truck is to driver
    (D) crop is to farmer
    (E) script is to actor

37. Frigid is to tropical as
    (A) raw is to cooked
    (B) detergent is to clean
    (C) snow is to sunshine
    (D) sleek is to stylish
    (E) beach is to sandy

38. Los Angeles is to California as
    (A) Phoenix is to New Mexico
    (B) Philadelphia is to Pittsburgh
    (C) Houston is to Texas
    (D) state is to country
    (E) Denver is to America

39. Menu is to diner as catalog is to
    (A) cashier
    (B) order
    (C) seller
    (D) purchase
    (E) shopper

40. Cuff is to collar as mouse is to
    (A) keyboard
    (B) cheese
    (C) cat
    (D) trap
    (E) rodent

GO ON TO THE NEXT PAGE.

41. Snake is to belly as
    (A) monkey is to tail
    (B) bear is to hands
    (C) horse is to legs
    (D) pig is to snout
    (E) person is to feet

42. Carat is to diamond as
    (A) calorie is to heat
    (B) liquid is to volume
    (C) perimeter is to inches
    (D) unit is to measurement
    (E) gram is to pound

43. Book is to read as data is to
    (A) analyze
    (B) prove
    (C) submit
    (D) foretell
    (E) conclude

44. Burnish is to polish as
    (A) search is to find
    (B) wash is to rinse
    (C) peel is to scrape
    (D) shine is to glisten
    (E) reinforce is to strengthen

45. Fresh is to rancid as
    (A) heat is to boil
    (B) ripe is to rotten
    (C) molten is to lava
    (D) shed is to discard
    (E) cooked is to burnt

46. Fire is to heat as
    (A) cold is to snow
    (B) lamp is to light
    (C) cool is to breeze
    (D) wax is to melt
    (E) music is to listen

47. Browsing is to shopping as
    (A) skimming is to reading
    (B) nodding is to agreeing
    (C) walking is to running
    (D) hiking is to climbing
    (E) seeing is to recognizing

48. Recital is to pianist as exhibit is to
    (A) museum
    (B) clay
    (C) auction
    (D) artist
    (E) gallery

49. Song is to medley as
    (A) series is to book
    (B) collection is to displays
    (C) gumball is to machines
    (D) picture is to collage
    (E) survey is to lists

50. Exercise is to sweat as
    (A) wander is to meander
    (B) reduce is to budget
    (C) harvest is to produce
    (D) accept is to refuse
    (E) vote is to confirm

51. Stamen is to flower as
    (A) computer is to monitor
    (B) lens is to eye
    (C) socket is to cord
    (D) spiral is to notebook
    (E) pillow is to sleep

52. Map is to cartographer as
    (A) club is to golfer
    (B) book is to librarian
    (C) car is to mechanic
    (D) building is to architect
    (E) cake is to baker

53. Baby is to crawling as
    (A) rock is to skipping
    (B) trout is to fishing
    (C) frog is to jumping
    (D) parent is to driving
    (E) bird is to nesting

54. Eraser is to chalkboard as
    (A) mop is to floor
    (B) keyboard is to computer
    (C) ballpoint is to pen
    (D) towel is to soap
    (E) machine is to washing

GO ON TO THE NEXT PAGE.

55. Eager is to fervent as
    (A) tedious is to bored
    (B) glum is to sad
    (C) pleased is to ecstatic
    (D) enraged is to mad
    (E) remorse is to sorrow

56. Bread is to moldy as
    (A) whisker is to hairy
    (B) disease is to sickly
    (C) blood is to scab
    (D) steel is to rusty
    (E) running is to sweaty

57. Dog is to collie as lizard is to
    (A) cage
    (B) chameleon
    (C) reptile
    (D) pet
    (E) desert

58. Chisel is to carving as
    (A) thread is to sewing
    (B) clay is to sculpting
    (C) wheel is to driving
    (D) blender is to mixing
    (E) recipe is to cooking

59. Drop is to break as
    (A) spill is to tip
    (B) stumble is to fall
    (C) adorn is to decorate
    (D) stitch is to sew
    (E) drive is to crash

60. Ruby is to red as amber is to
    (A) brown
    (B) green
    (C) pink
    (D) blue
    (E) purple

STOP!
If you finish before time is up, check your work on this section only.

Time: 30 Minutes
25 Questions

Directions: For each of the following questions, mark the letter of your choice on the answer sheet.

1. If $6 + 12 + \underline{\quad} = 5 + 11 + 6$, then $\underline{\quad} =$
    (A) 2
    (B) 3
    (C) 4
    (D) 5
    (E) 6

2. $4 \times 3 \times 6 \times 2$ is equal to the product of 24 and
    (A) 6
    (B) 7
    (C) 8
    (D) 9
    (E) 11

3. If $2/3$ of a number is 24, then $1/4$ of the same number is
    (A) 20
    (B) 16
    (C) 13
    (D) 12
    (E) 9

4. A box of chocolates has 45 pieces. If 9 pieces have nuts in them, what percent of the chocolates are without nuts?
    (A) 20%
    (B) 45%
    (C) 79%
    (D) 80%
    (E) 84%

5. In the Northshore Swimming Club, 6 of 48 members are females. What is the ratio of females to all club members?
    (A) $\dfrac{3}{16}$
    (B) $\dfrac{1}{15}$
    (C) $\dfrac{1}{4}$
    (D) $\dfrac{1}{8}$
    (E) $\dfrac{1}{12}$

6. Two numbers together add to 375. One number is twice the size of the other. What are the two numbers?
    (A) 25, 50
    (B) 50, 100
    (C) 75, 150
    (D) 95, 190
    (E) 125, 250

7. $6^{3}/4\% =$
    (A) 67.5
    (B) 6.75
    (C) 0.675
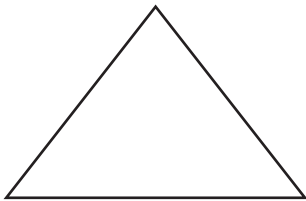   (D) 0.0675
    (E) 0.00675

GO ON TO THE NEXT PAGE.

8. A club collected $1,085.00. If 75% of that came from membership dues, how much money came from sources other than membership?
   (A) $271.25
   (B) $338.75
   (C) $365.75
   (D) $425.05
   (E) $442.25

9. A right angle is an angle that measures
   (A) exactly 90°
   (B) greater than 90°
   (C) less than 90°
   (D) 45°
   (E) 30°

10. In the equilateral triangle shown, what is the measure of each angle?

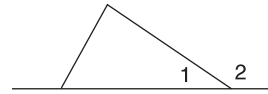

   (A) 60°
   (B) 90°
   (C) 120°
   (D) 140°
   (E) 180°

11. If $12a + 4a - 7a = 27$, $a =$
   (A) 1
   (B) 2
   (C) 3
   (D) 4
   (E) 5

12. It costs n dollars to buy 10 boxes of crackers. At the same rate, how many dollars will it cost to buy 25 boxes of crackers?
   (A) $2.5n$
   (B) $25n$
   (C) $2n/5$
   (D) $5n/2$
   (E) $250n$

13. In the figure below, if ∠1 is 33°, what is the measure of ∠2?
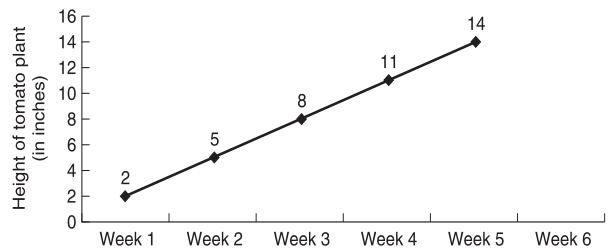

   (A) 56°
   (B) 110°
   (C) 130°
   (D) 147°
   (E) 180°

14. Paul has a garden that is 4 meters by 7 meters. If he uses 2 ounces of fertilizer per square meter, how many ounces must he use?
   (A) 21 oz
   (B) 42 oz
   (C) 44 oz
   (D) 50 oz
   (E) 56 oz

15. Steve is measuring the growth of a tomato plant. The chart below indicates his measurements for the past five weeks. Based on the information in the chart, what should he predict will be the height of the plant at week 6?

   (A) 15 inches
   (B) 17 inches
   (C) 18 inches
   (D) 21 inches
   (E) 24 inches

16. A student buys a sandwich for 80 cents, milk for 20 cents, and pie for 30 cents. How much does the meal cost?
   (A) $1.00
   (B) $1.20
   (C) $1.30
   (D) $1.40
   (E) $1.50

GO ON TO THE NEXT PAGE.

17. On a test with 75 questions, Cassidy answered 45 correctly. What percent did she answer correctly?
    (A) 60%
    (B) 72%
    (C) 84%
    (D) 89%
    (E) 92%

18. Which of the following is NOT equal to a whole number?

    (A) $\dfrac{16}{4}$

    (B) $6 \times \dfrac{2}{3}$

    (C) $4 \div \dfrac{1}{4}$

    (D) $\dfrac{1}{3} \times 4$

    (E) $3 + 2$

19. Jake spent one-fifth of his life in school. If he is now 55, how many years did he spend in school?
    (A) 9
    (B) 11
    (C) 13
    (D) 15
    (E) 17

20. What is the perimeter of the following rectangle?

    11 m

    3 m

    (A) 12 m
    (B) 18 m
    (C) 24 m
    (D) 28 m
    (E) 30 m

21. Bobby's test scores for social studies are 93, 76, 91, 83, and 72. What is his average score?
    (A) 83
    (B) 87
    (C) 91
    (D) 93
    (E) 94

22. Riverside School has 150 fewer students than twice the number of students at Hillside School. If Riverside School has 500 students, how many students attend Hillside School?
    (A) 125
    (B) 150
    (C) 250
    (D) 300
    (E) 325

23. A ladder is placed against a building. If the ladder makes a 55° angle with the ground, what is the measure of the angle that the ladder makes with the building?
    (A) 25°
    (B) 30°
    (C) 35°
    (D) 40°
    (E) 45°

24. Ashley buys 48 apples. There are 12 Red Delicious apples and 16 Granny Smith apples. What fraction of the apples are not Red Delicious or Granny Smith?

    (A) $\dfrac{1}{5}$

    (B) $\dfrac{1}{4}$

    (C) $\dfrac{1}{3}$

    (D) $\dfrac{5}{12}$

    (E) $\dfrac{7}{12}$

25. What is the total cost of a $750 television, including an 8% sales tax?
    (A) $765
    (B) $784
    (C) $79,218
    (D) $810
    (E) $824

STOP!
If you finish before time is up, check your work on this section only.

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Directions: Each reading passage is followed by questions about it. Answer the questions that follow a passage on the basis of what is stated or implied in that passage. For each question, select the answer you think is best and record your choice by filling in the corresponding oval on the answer sheet.

Volcanoes are mountains, but they are very different from other mountains; they are not formed by folding and crumpling or by uplift and erosion. Instead, volcanoes are built by the accu-
5 mulation of their own eruptive products—lava, bombs (crusted over lava blobs), ashflows, and tephra (airborne ash and dust). A *volcano* is most commonly a conical hill or mountain built around a vent that connects with reservoirs of molten
10 rock below the surface of the Earth. The term volcano also refers to the opening or vent through which the molten rock and associated gases are expelled.

Deep within the Earth it is so hot that some
15 rocks slowly melt and become a thick flowing substance called *magma*. Because it is lighter than the solid rock around it, magma rises and collects in magma chambers. Eventually some of the magma pushes through vents and fissures in
20 the Earth's surface and a volcanic eruption occurs. Magma that has erupted is called *lava*.

Some volcanic eruptions are explosive and others are not. How explosive an eruption is depends on how runny or sticky the magma is.
25 If magma is thin and runny, gases can escape easily from it. When this type of magma erupts, it flows out of the volcano. Because they move slowly enough for people to get out of their way, lava flows rarely kill people. They can, however,
30 cause considerable destruction to buildings in their path. If magma is thick and sticky, gases cannot escape easily. Pressure builds up until the gases escape violently and explode. In this type of eruption, the magma blasts into the air and breaks
35 apart into pieces called *tephra*. Tephra can range in size from tiny particles of ash to house-size

boulders. Large-sized tephra typically falls back to the ground on or close to the volcano and progressively smaller fragments are carried away
40 from the vent by wind. Volcanic ash, the smallest tephra fragments, can travel hundreds to thousands of kilometers downwind from a volcano.

1. A primary difference between volcanoes and other mountains is in
   (A) their height
   (B) their ruggedness
   (C) their age
   (D) where they are located
   (E) how they are formed

2. A volcanic eruption is likely to be most explosive if magma
   (A) is thin and runny
   (B) is thick and sticky
   (C) rises and collects in magma chambers
   (D) pushes out through fissures in the Earth's surface
   (E) becomes lava

3. The author uses italic print primarily to
   (A) emphasize words that are used in an unusual way
   (B) indicate words that are difficult to pronounce
   (C) point out foreign words
   (D) highlight important terms that are defined in the text
   (E) indicate words that are not necessary to understanding the passage

GO ON TO THE NEXT PAGE.

4. All of the following can be explicitly answered by the passage EXCEPT:
   (A) What factors contribute to hot temperatures deep inside the Earth?
   (B) Why are some volcanic eruptions explosive while others are not?
   (C) As dangerous as eruptions can be, why do lava flows rarely kill people?
   (D) Why does magma rise and collect in chambers?
   (E) Why does pressure build up in magma that is thick and sticky?

5. This passage would most likely appear in
   (A) a newspaper
   (B) a science textbook
   (C) an adventure novel
   (D) a travel brochure
   (E) a safety manual

6. Which of the following statements is NOT true of tephra?
   (A) It can range in size from tiny particles of ash to huge boulders.
   (B) It can travel thousands of kilometers from a volcano.
   (C) It can be found trapped in magma.
   (D) Large tephra falls on or close to a volcano.
   (E) It is the term for rock fragments erupted into the air by volcanoes.

The following speech was delivered by Frederick Douglass at a meeting of the Anti-Slavery Society in Pittsburgh in 1863.

I am one of those who believe that it is the mission of this war to free every slave in the United States. I am one of those who believe that we should consent to no peace which shall not be
5 an Abolition peace. I am, moreover, one of those who believe that the work of the American Anti-Slavery Society will not have been completed until the black men of the South, and the black men of the North, shall have been admitted, fully
10 and completely, into the body politic of America. I look upon slavery as going the way of all the earth. It is the mission of the war to put it down.

I know it will be said that I ask you to make the black man a voter in the South. It is said that
15 the colored man is ignorant, and therefore he shall not vote. In saying this, you lay down a rule for the black man that you apply to no other class

of your citizens. If he knows enough to be hanged, he knows enough to vote. If he knows an honest
20 man from a thief, he knows much more than some of our white voters. If he knows enough to take up arms in defence of this Government and bare his breast to the storm of rebel artillery, he knows enough to vote.
25 All I ask, however, in regard to the blacks, is that whatever rule you adopt, whether of intelligence or wealth, as the condition of voting for whites, you shall apply it equally to the black man. Do that, and I am satisfied, and eternal justice
30 is satisfied; liberty, fraternity, equality, are satisfied, and the country will move on harmoniously.

7. According to Douglass, the mission of the Civil War is to
   (A) destroy the Confederacy
   (B) punish the rebel soldiers
   (C) end slavery
   (D) preserve the Union
   (E) create a new class of citizens

8. Douglass believes the work of the Anti-Slavery Society should not be considered complete until
   (A) slavery is abolished
   (B) black men in the South are able to vote
   (C) blacks can move freely between the South and the North
   (D) black men of the North and South have the right to vote
   (E) all conditions for voting are ended

9. What does Douglass mean by calling for black men to be admitted "fully and completely into the body politic of America"(lines 9–10)?
   (A) They must have the same rights and privileges as all other citizens.
   (B) They must be able to vote.
   (C) They must be able to run for office.
   (D) They must take up arms to defend the Government.
   (E) They must be considered a separate class of citizens.

GO ON TO THE NEXT PAGE.

10. The purpose of Douglass's speech was to
    (A) inform members of the society of the horrors of slavery
    (B) convince listeners to adopt fair and equal voting requirements
    (C) inform listeners of the progress of the war
    (D) convince members of the society that slavery should be ended
    (E) explain how the right to vote would create harmony

The great Pullman was whirling onward with such dignity of motion that a glance from the window seemed simply to prove that the plains of Texas were pouring eastward. Vast flats of green
5   grass, dull-hued spaces of mesquite and cactus, little groups of frame houses, woods of light and tender trees, all were sweeping into the east, sweeping over the horizon, a precipice.

A newly married pair had boarded this coach
10 at San Antonio. The man's face was reddened from many days in the wind and sun, and a direct result of his new black clothes was that his brick-colored hands were constantly performing in a most conscious fashion. From time to time he
15 looked down respectfully at his attire. He sat with a hand on each knee, like a man waiting in a barber's shop. The glances he devoted to other passengers were furtive and shy.

The bride was not pretty, nor was she very
20 young. She wore a dress of blue cashmere, with small reservations of velvet here and there and with steel buttons abounding. She continually twisted her head to regard her puff sleeves, very stiff, straight, and high. They embarrassed her.
25 It was quite apparent that she had cooked, and that she expected to cook, dutifully. The blushes caused by the careless scrutiny of some passengers as she had entered the car were strange to see upon this plain, under-class countenance,
30 which was drawn in placid, almost emotionless lines.

They were evidently very happy. "Ever been in a parlor-car before?" he asked, smiling with delight.
35 "No," she answered, "I never was. It's fine, ain't it?"

"Great! And then after a while we'll go forward to the diner and get a big layout. Finest meal in the world. Charge a dollar."

40 "Oh, do they?" cried the bride. "Charge a dollar? Why, that's too much—for us—ain't it, Jack?"

"Not this trip, anyhow," he answered bravely. "We're going to go the whole thing."
Stephen Crane from
"The Bride Comes to Yellow Sky"

11. The tone of the passage suggests that the author regards the newly married couple with
    (A) embarrassment
    (B) disrespect
    (C) sympathy
    (D) sorrow
    (E) scorn

12. Which word best describes the newlywed couple?
    (A) well-to-do
    (B) sad
    (C) frightened
    (D) unsophisticated
    (E) unpleasant

13. When this passage takes place, the bride and groom are most probably
    (A) in a hotel
    (B) at a train station
    (C) on a stagecoach
    (D) in a diner
    (E) on a train

14. As it is used in line 18, the word "furtive" most nearly means
    (A) stealthy
    (B) steady
    (C) focused
    (D) friendly
    (E) unabashed

15. The narrator of this story is
    (A) the groom
    (B) the bride
    (C) a participant in the story
    (D) an outside observer
    (E) an adult looking back on his life

GO ON TO THE NEXT PAGE.

16. The main purpose of this passage is to
    (A) express an opinion
    (B) analyze information
    (C) introduce characters and setting
    (D) resolve a crisis
    (E) set up a conflict between two characters

17. By saying, "It was quite apparent that she had cooked, and that she expected to cook, dutifully," the author is suggesting that the bride
    (A) expects to eat out regularly
    (B) has led a life of hard work
    (C) has never eaten in a restaurant before
    (D) wants to learn more about cooking
    (E) will learn to cook her husband's favorite foods

Over two decades ago, scientists in the Agricultural Research Service Vegetable Crops Research Unit at Madison, Wisconsin, began a quest to breed carrots packed with beta-carotene—
5 an orange pigment used by the body to create vitamin A. Thanks largely to their work, today's carrots provide consumers with 75 percent more beta-carotene than those available 25 years ago.

The researchers, led by plant geneticist
10 Philipp Simon, haven't limited themselves to the color orange. They've selectively bred a rainbow of carrots—purple, red, yellow, even white. Scientists are learning that these plant pigments perform a range of protective duties in the
15 human body.

Red carrots derive their color mainly from lycopene, a type of carotene believed to guard against heart disease and some cancers. Yellow carrots accumulate xanthophylls, pigments similar
20 to beta-carotene that support good eye health. Purple carrots possess an entirely different class of pigments—anthocyanins—which act as powerful antioxidants.

While colored carrots are unusual, they're not
25 exactly new. "Purple and yellow carrots were eaten more than 1,000 years ago in Afghanistan and 700 years ago in western Europe," says Simon. "But the carrot-breeding process has gone on intensively for just 50 years."
30 In nature, different strains of carrots contain varying types and amounts of carotenoids—the pigments responsible for orange, yellow, and red colors. To assist seed companies and growers who wish to produce nutrient-rich carrots, Simon and
35 his lab are working to map all the genes that play

a part in synthesizing carotenoids in major carrot lines. Simon now knows of 20 genes that are involved. But determining a particular gene's role in generating carotenoids is not that straightforward.
40 Aside from enhancing the nutritional value of carrots—as well as onions, garlic, and cucumbers—researchers at Simon's laboratory also work to improve the vegetable's culinary quality and appeal.
45 With their compelling health benefits and a thumbs-up from taste testers, Simon's colorful carrots will be a great addition to supermarket produce aisles once consumers create a demand for them.

18. The main purpose of this passage is to
    (A) explain why carrots can be various colors
    (B) point out the health benefits of carotenoids
    (C) report on enhancements to the nutritional value of carrots
    (D) explore ways to increase carrot production
    (E) encourage people to buy carrots of various colors

19. The author's tone can best be described as
    (A) argumentative
    (B) emotional
    (C) sentimental
    (D) informative
    (E) optimistic

20. According to the passage, carrots have been bred in all of the following colors EXCEPT:
    (A) yellow
    (B) green
    (C) white
    (D) red
    (E) purple

21. The type of carotene that gives carrots a red color is
    (A) lycopene
    (B) xanthophyll
    (C) anthocyanin
    (D) beta-carotene
    (E) antioxidant

GO ON TO THE NEXT PAGE.

22. Which of the following is true of colored carrots?
    (A) They first appeared about 50 years ago.
    (B) They do not equal regular carrots in nutritive value.
    (C) They are not as tasty as traditional carrots.
    (D) They were first bred by scientists at the Agricultural Research Service Vegetable Crops Research Unit.
    (E) They derive their color from varying types and amounts of carotenoids.

23. This passage can best be described as
    (A) a short story
    (B) a biography
    (C) a research report
    (D) propaganda
    (E) an editorial

    From the outskirts of the town,
    Where of old the mile-stone stood,
        Now a stranger, looking down
        I behold the shadowy crown
5   Of the dark and haunted wood

        Is it changed, or am I changed?
    Ah! the oaks are fresh and green,
        But the friends with whom I ranged
        Through their thickets are estranged
10 By the years that intervene.

        Bright as ever flows the sea,
    Bright as ever shines the sun,
        But alas! they seem to me
        Not the sun that used to be,
15 Not the tides that used to run.

                    —Henry Wadsworth Longfellow
                                    "Changed"

24. The author's tone is best described as
    (A) lighthearted
    (B) optimistic
    (C) nostalgic
    (D) hostile
    (E) humorous

25. This poem is written from the point of view of
    (A) a frightened child
    (B) a disinterested adult
    (C) a sympathetic outside observer
    (D) a sad observer of a transformation
    (E) an adult recalling a childhood dream

26. In line 5, the author most probably refers to the woods as "haunted" in order to
    (A) make the narrator seem foolish and superstitious
    (B) hint at the narrator's acceptance of death
    (C) reveal the narrator's belief in spirits
    (D) set a dark and gloomy mood
    (E) indicate the woods were filled with memories

27. Which of the following best expresses the theme of this poem?
    (A) the power of the sun
    (B) the passage of time
    (C) the fluctuation of the tide
    (D) autumn
    (E) nature's renewal

    The Statue of Liberty was a gift to the people of the United States from the people of France in recognition of the friendship established between the two nations during the American Revolution.
5   Over the years, the Statue of Liberty has come to symbolize freedom and democracy, as well as this international friendship.
    Sculptor Frederic Auguste Bartholdi was commissioned to design a sculpture with the year
10 1876 in mind for completion, to commemorate the centennial of the American Declaration of Independence. Alexandre Gustave Eiffel (designer of the Eiffel Tower) was called in to address the structural issues of Bartholdi's colossal sculpture.
15 The Statue was a joint effort between America and France and it was agreed upon that the American people would build the pedestal, and the French people would be responsible for the Statue and its assembly here in the United States.
20 Lack of funds was a problem on both sides of the Atlantic Ocean. In France, public fees, various forms of entertainment, and a lottery were among the methods used to raise funds. In the United States, benefit theatrical events, art exhibitions,
25 auctions and prize fights helped to provide the needed funds. When fundraising for the pedestal lagged, Joseph Pulitzer (noted for the Pulitzer Prize) used the editorial pages of his newspaper *The World* to aid in the fundraising effort.
30 Pulitzer's campaign of harsh criticism against both the rich, who had failed to finance the pedestal construction, and the middle class, who

GO ON TO THE NEXT PAGE.

were content to rely upon the wealthy to provide the funds, was successful in motivating the people of America to donate.

Financing for the pedestal was completed in August 1885, and pedestal construction was finished in April of 1886. The Statue was completed in France in July 1884 and arrived in New York Harbor in June, 1885, on board the French frigate *Isere.* In transit, the Statue was reduced to 350 individual pieces and packed in 214 crates. The Statue was re-assembled on her new pedestal in four months time. On October 28, 1886, in front of thousands of spectators, President Grover Cleveland accepted the Statue on behalf of the United States. She was a centennial gift ten years late.

28. According to the passage, the Statue of Liberty was intended to celebrate the
(A) Centennial of the Declaration of Independence
(B) end of the Civil War
(C) end of hostilities between France and the United States
(D) start of the twentieth century
(E) dawn of a new era of international cooperation

29. In line 13, which word can be substituted for "address" without changing the meaning of the sentence?
(A) speak to
(B) focus on
(C) forward
(D) lecture
(E) label

30. From his actions, it can be inferred that Joseph Pulitzer's attitude toward the Statue of Liberty was
(A) openly hostile
(B) extremely cautious
(C) enthusiastically supportive
(D) completely neutral
(E) overly critical

31. According to the passage, the Statue of Liberty symbolizes
   I. democracy
   II. freedom
   III. international friendship
   IV. a treaty between the United States and France

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

32. According to the passage, all of the following are true EXCEPT:
(A) The United States agreed to finance and build the pedestal.
(B) Bartholdi needed help with structural issues of the statue.
(C) Joseph Pulitzer was instrumental in raising money for the pedestal.
(D) The designer of the Eiffel Tower was called in to help raise funds for the project.
(E) The statue was completed in France before the pedestal was fully funded.

33. The main purpose of the passage is to
(A) inform the reader about the history of the Statue of Liberty
(B) describe how Bartholdi designed the Statue of Liberty
(C) compare fundraising efforts in the United States and France
(D) defend the use of newspaper editorials to help raise funds for the project
(E) explain how the Statue was assembled on her pedestal

34. This passage would most likely appear in a
(A) short story
(B) novel
(C) newspaper
(D) engineering journal
(E) textbook

GO ON TO THE NEXT PAGE.

At the end of what seemed a tedious while, I had managed to pack my head full of islands, towns, bars, "points," and bends; and a curiously inanimate mass of lumber it was, too. However, inasmuch as I could shut my eyes and reel off a good long string of these names without leaving out more than ten miles of river in every fifty, I began to feel that I could take a boat down to New Orleans if I could make her skip those little gaps. But of course my complacency could hardly get start enough to lift my nose a trifle into the air, before Mr. Bixby would think of something to fetch it down again. One day he turned on me suddenly with this settler: —

"What is the shape of Walnut Bend?"

He might as well have asked me my grandmother's opinion of protoplasm. I reflected respectfully, and then said I didn't know it had any particular shape. My gunpowdery chief went off with a bang, of course, and then went on loading and firing until he was out of adjectives.

I had learned long ago that he only carried just so many rounds of ammunition, and was sure to subside into a very placable and even remorseful old smooth-bore as soon as they were all gone. That word "old" is merely affectionate; he was not more than thirty-four. I waited. By and by he said, —

"My boy, you've got to know the *shape* of the river perfectly. It is all there is left to steer by on a very dark night. Everything else is blotted out and gone. But mind you, it hasn't the same shape in the night that it has in the day-time."

"How on earth am I ever going to learn it, then?"

"How do you follow a hall at home in the dark? Because you know the shape of it. You can't see it."

"Do you mean to say that I've got to know all the million trifling variations of shape in the banks of this interminable river as well as I know the shape of the front hall at home?"

"On my honor you've got to know them *better* than any man ever did know the shapes of the halls in his own house."

"I wish I was dead!"

Mark Twain from *Life on the Mississippi*

35. When the narrator says, "my complacency could hardly get start enough to lift my nose a trifle into the air, before Mr. Bixby would think of something to fetch it down again," he means
(A) Whenever the narrator picked his head up, Mr. Bixby was there to tell him to keep his eyes on the river.
(B) Just as he thought he was learning the river, Bixby would demonstrate how little the narrator actually knew.
(C) No one can name all the islands, towns, bars, points, and bends of the Mississippi River.
(D) No other pilot knew the river as well as Mr. Bixby did.
(E) The narrator could never hope to know the river as well as Bixby did.

36. Why does the narrator compare Bixby's question about the shape of Walnut Bend to asking about his grandmother's opinion of protoplasm?
(A) Only his grandmother could answer Bixby's question.
(B) Both are questions that have no real answer.
(C) Both are questions the narrator cannot answer.
(D) Walnut Bend has the same shape as protoplasm.
(E) Bixby does not know the narrator's grandmother.

37. What is the meaning of "gunpowdery" in line 19?
(A) loud
(B) smoky
(C) strong
(D) explosive
(E) gritty

38. Which of the following best describes the narrator's reaction to the information that he will need to know the shape of the river perfectly even at night?
(A) anger
(B) regret
(C) amazement
(D) enthusiasm
(E) despair

GO ON TO THE NEXT PAGE.

39. The tone of this passage can best be described as
    (A) humorous
    (B) serious
    (C) angry
    (D) analytical
    (E) tense

40. This passage can best be described as
    (A) a news item
    (B) propaganda
    (C) an autobiography
    (D) a research report
    (E) a textbook excerpt

STOP!
If you finish before time is up, check your work on this section only.

Directions: For each of the following questions, mark the letter of your choice on the answer sheet.

1. What is 2% of 5,000?
   - (A) 10
   - (B) 80
   - (C) 100
   - (D) 105
   - (E) 110

2. $3.5 \times 0.93 =$
   - (A) 2.886
   - (B) 2.965
   - (C) 3.255
   - (D) 3.311
   - (E) 3.405

3. Which of the following is NOT equal to a whole number?
   - (A) $\dfrac{32}{4}$
   - (B) $4 \times \dfrac{8}{16}$
   - (C) $8 \div \dfrac{1}{8}$
   - (D) $\dfrac{5}{12} \times 8$
   - (E) $6.4 + 11.6$

4. $62\frac{1}{2}\% =$
   - (A) 625
   - (B) 62.5
   - (C) 6.25
   - (D) 0.625
   - (E) 0.0625

5. It costs m dollars to buy 60 nails. At the same rate, how many dollars will it cost to buy 24 nails?
   - (A) $\dfrac{m}{5}$
   - (B) $\dfrac{2m}{5}$
   - (C) $2m$
   - (D) $5m$
   - (E) $10m$

6. If $\frac{5}{12}$ of a number is 50, then $\frac{1}{2}$ of the same number is
   - (A) 72
   - (B) 70
   - (C) 64
   - (D) 60
   - (E) 56

7. $4^2 + 3(2 - 6) =$
   - (A) 4
   - (B) 12
   - (C) −4
   - (D) −8
   - (E) −12

8. What is the mean of the following numbers?
   24, 36, 18, 30, 90, 690
   - (A) 48
   - (B) 64
   - (C) 148
   - (D) 152
   - (E) 160

9. If $\dfrac{2}{25} = \dfrac{n}{500}$, what is n?
   - (A) 20
   - (B) 40
   - (C) 60
   - (D) 80
   - (E) 100

10. If $6 \times 8 \div$ _____ $= 5 \times 4 + 4$, then _____ $=$
    - (A) 2
    - (B) 3
    - (C) 4
    - (D) 5
    - (E) 6

GO ON TO THE NEXT PAGE.

11. $48 \div 6 \times 8 \times 8$ is equal to the product of 16 and
    (A) 16
    (B) 18
    (C) 24
    (D) 28
    (E) 32

12. $2 + {}^4/_{25} =$
    (A) 2.225
    (B) 2.16
    (C) 2.24
    (D) 2.45
    (E) 2.40

13. At the amusement park, Karen uses $^1/_3$ of her tickets for rides and $^1/_6$ of her tickets for food. What fraction of her tickets is left?
    (A) $\dfrac{1}{6}$
    (B) $\dfrac{1}{4}$
    (C) $\dfrac{1}{2}$
    (D) $\dfrac{2}{3}$
    (E) $\dfrac{3}{5}$

14. $12 \div 3^3/_4 =$
    (A) $1\dfrac{4}{5}$
    (B) $2\dfrac{2}{3}$
    (C) $2\dfrac{7}{16}$
    (D) $3\dfrac{1}{5}$
    (E) $3\dfrac{9}{13}$

15. Rosa buys a blouse for $23.95. The sales tax is 6.5%. What is the total cost of the blouse, including the sales tax?
    (A) $24.35
    (B) $24.78
    (C) $25.20
    (D) $25.51
    (E) $26.92

16. Kyle can ride his bike 30 km in 2 hours. At the same rate, how far can he ride in 7 hours?
    (A) 90 km
    (B) 105 km
    (C) 125 km
    (D) 130 km
    (E) 150 km

17. The distance around a rectangular park is 1 mile. If the width of the park is 880 feet, what is its length?
    (A) 720 ft
    (B) 840 ft
    (C) 1,250 ft
    (D) 1,510 ft
    (E) 1,760 ft

18. $10 \times (0.38 + 3.5) + 5.2 =$
    (A) 15.25
    (B) 24.15
    (C) 32.40
    (D) 44
    (E) 46.5

19. Daryl rents a computer by the hour. The rental company charges $25 + $6 per hour. Which equation represents this situation?
    (A) $25 + 6h$
    (B) $6h - 25$
    (C) $6(25 + h)$
    (D) $\dfrac{6}{h} + 25$
    (E) $h + \dfrac{25}{h}$

20. The temperature at midnight was –12°C. It rose 2°C each hour. What was the temperature at 11:00 A.M.?
    (A) –2°C
    (B) 4°C
    (C) 8°C
    (D) 10°C
    (E) 12°C

21. How many yards are in 4 miles?
    (A) 6,460
    (B) 6,720
    (C) 6,884
    (D) 7,040
    (E) 7,225

GO ON TO THE NEXT PAGE.

22. $25\,\tfrac{3}{5} \times 1\tfrac{1}{2} =$
    (A) $28\,\dfrac{4}{5}$

    (B) $30\,\dfrac{5}{3}$

    (C) $32\,\dfrac{2}{3}$

    (D) $35\,\dfrac{1}{3}$

    (E) $38\,\dfrac{2}{5}$

23. $23.4 \div 6 =$
    (A) 39
    (B) 3.9
    (C) 0.39
    (D) 0.039
    (E) 0.0039

24. $11\tfrac{1}{2} - 9\tfrac{3}{4} =$
    (A) $2\,\dfrac{1}{8}$

    (B) 2

    (C) $1\,\dfrac{7}{8}$

    (D) $1\,\dfrac{3}{4}$

    (E) $1\,\dfrac{1}{2}$

25. Each edge of a cube measures 5 in. What is the volume?
    (A) 10 in^3
    (B) 25 in^3
    (C) 100 in^3
    (D) 125 in^3
    (E) 250 in^3

STOP!
If you finish before time is up, check your work on this section only.

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SECTION 5
Time: 25 Minutes

Directions: You will have 25 minutes to plan and write an essay on the topic below. Read the topic carefully. Jot down some brief notes on the scratch paper provided and organize your thoughts before you begin to write. Write your final essay on the ruled lines below. Write or print legibly, using the black pen that will be given to you at the test center. A copy of your essay will be sent to each school that will be receiving your test results.

Topic: Haste makes waste.

Assignment: Do you agree or disagree with the topic statement? Support your position with examples from your own experience, the experience of others, current events, history, or literature.

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Answer Key

Section 1 Verbal

1.	D	21.	E	41.	E
2.	C	22.	C	42.	A
3.	B	23.	D	43.	A
4.	B	24.	A	44.	E
5.	A	25.	C	45.	B
6.	E	26.	B	46.	B
7.	E	27.	C	47.	A
8.	D	28.	D	48.	D
9.	B	29.	E	49.	D
10.	C	30.	B	50.	C
11.	A	31.	B	51.	B
12.	D	32.	C	52.	E
13.	C	33.	E	53.	C
14.	A	34.	D	54.	A
15.	E	35.	B	55.	C
16.	A	36.	D	56.	D
17.	B	37.	A	57.	B
18.	D	38.	C	58.	D
19.	D	39.	E	59.	B
20.	B	40.	A	60.	A

Section 2 Quantitative I

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

Section 3 Reading Comprehension

1.	E	15.	D	29.	B
2.	B	16.	C	30.	C
3.	D	17.	B	31.	D
4.	A	18.	C	32.	D
5.	B	19.	D	33.	A
6.	C	20.	B	34.	E
7.	C	21.	A	35.	B
8.	D	22.	E	36.	C
9.	A	23.	C	37.	D
10.	B	24.	C	38.	E
11.	C	25.	D	39.	A
12.	D	26.	E	40.	C
13.	E	27.	B		
14.	A	28.	A		

Section 4 Quantitative II

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

Answers and Explanations

Section 1 Verbal

1. **D is correct.** A *novice* is a person new to a field or activity—a *beginner*.

2. **C is correct.** To *fabricate* is to concoct in order to deceive—in other words, to *falsify*.

3. **B is correct.** *Friendly* means agreeable in disposition, good-natured and likable, or *amiable*.

4. **B is correct.** A *genre* is a type or class. The choice that best fits this definition is *category*.

5. **A is correct.** A *summit* is a *conference* or meeting of high-level officials, typically called to shape a course of action.

6. **E is correct.** To do something *deftly* is to do it quickly and *skillfully*.

7. **E is correct.** To *prosper* is to be fortunate or successful, especially in terms of one's health or finances—in other words, to *thrive*.

8. **D is correct.** To *spurn* is to *reject* disdainfully or contemptuously; *scorn*.

9. **B is correct.** *Complimentary* means given *free* to repay a favor or as an act of courtesy.

10. **C is correct.** *Visage* is the *face* or facial expression of a person; *countenance*.

11. **A is correct.** A *respite* is a usually short interval of rest or relief—in other words, a *pause*.

12. **D is correct.** *Regretful* means feeling troubled, remorseful, or *contrite* for one's sins or offenses.

13. **C is correct.** *Frugal* means thrifty or *economical*.

14. **A is correct.** To *imply* is to *suggest*, express, or indicate indirectly.

15. **E is correct.** To *incite* is to *provoke* or urge on.

16. **A is correct.** *Meager* means deficient in quantity, fullness, or extent; scanty or *paltry*.

17. **B is correct.** A *prediction* is a foretelling or a *forecast*.

18. **D is correct.** A *facet* is one of numerous *aspects*, as of a subject.

19. **D is correct.** To *absolve* is to *clear* someone of guilt or blame.

20. **B is correct.** To *subvert* means to overthrow or *destroy* something.

21. **E is correct.** To *mourn* is to feel or express grief or sorrow—in other words, to *grieve*.

22. **C is correct**. *Poisonous* means capable of harming or killing by or as if by poison; venomous or *toxic*.

23. **D is correct.** *Aplomb* is self-assurance or *confidence*.

24. **A is correct.** *Corroboration* is ratification or *confirmation* that some statement or fact is true.

25. **C is correct.** Behavior that is *erratic* lacks consistency, regularity, or uniformity; in other words it is *unpredictable*.

26. **B is correct.** *Credible* means plausible or *believable*.

27. **C is correct.** To *abscond* is to *leave* quickly and secretly and hide oneself, often to avoid arrest or prosecution.

28. **D is correct.** To *calm* is to make or become calm or quiet—in other words, to *soothe*.

29. **E is correct**. *Irritable* means easily provoked, impatient, ill-tempered, or *petulant*.

30. **B is correct.** A *travesty* is a debased or grotesque likeness or a *mockery*.

31. **B is correct.** *Safe* is the opposite of *dangerous* just as *bland* is the opposite of *spicy*. Only choice B provides two adjectives that are opposite in meaning. Choices D and E cannot be correct because the words in each pair are not the same part of speech.

32. **C is correct.** A *star* is found in the *sky* in the same way that a *fish* is found in the *ocean*.

33. **E is correct.** This analogy pairs an activity with a result. Of the answer choices, only choice E has the same relationship as the original word pair: To *cut* produces a *wound* as to *cry* produces *tears*.

34. **D is correct.** This stem provides a usage sequence by pairing *camera* with *picture*. Choice A comes close to being right but reverses the order by placing *breeze* before *fan*. Only choice D follows the logic of the stem and places the words in the correct order: a *camera* is used to take a *picture* just as a *phone* is used to make a *call*.

35. **B is correct.** This sequence tests your knowledge of relationships between units of measurement. *Lumens* are a measure of *brightness* just as a *decibel* is a measure of *volume*.

36. **D is correct.** *Books* are produced by *writers* much as *crops* are produced by *farmers*. No other choice offers a product made by a particular worker. *Doctors* do not make *needles* (choice A); *dentists* do not produce *cavities* (choice B); *drivers* do not build *trucks* (choice C); and *actors* do not write *scripts* (choice E).

37. **A is correct.** *Frigid* is the opposite of *tropical*, and *raw* is the opposite of *cooked*. No other answer choice offers the proper contrast.

38. **C is correct.** This analogy tests your knowledge of places and locations. Los Angeles is a city in California just as Houston is a city in Texas. Choice A is incorrect because Phoenix is in Arizona, not New Mexico. Philadelphia and Pittsburgh (choice B) are both cities in Pennsylvania. Choice E is incorrect because it pairs a city with a country, not a state.

39. **E is correct.** The relationship in this sequence is one of individual to object. A *diner* uses a *menu* in the way that a *shopper* would use a *catalog*. One provides a list of options for the other.

40. **A is correct.** This sequence offers a part-to-part relationship. A *cuff* is a part of a shirt in the same way that a *collar* is a part of a shirt. Similarly, a *mouse* is part of a computer in the same way that a *keyboard* is part of a computer.

41. **E is correct.** Initially, this relationship in this sequence may strike you as one of part to whole. However, you will need to take the analogy one step further in order to arrive at the correct answer. The *belly* is the part of the *snake* used for traveling just as *feet* are the part of a *person* used for traveling. Don't be fooled by choice C; a *horse* travels on its feet, just like a person.

42. **A is correct.** The relationship that this sequence is testing is one of measurement units. A *diamond* is measured in *carats* and *heat* is measured in *calories*. Choices C and D provide the right descriptions, however both answer choices invert the correct order.

43. **A is correct.** This is another example of an object-to-activity analogy. People *read books* in much the same way that they *analyze data*.

44. **E is correct.** This sequence provides another example of an activity-to-result analogy. When you *burnish* an object, you *polish* it. Similarly, when you *reinforce* an object, you *strengthen* it.

45. **B is correct.** The relationship in this question is one of contrasts. *Fresh* is the opposite of *rancid*, just as *ripe* is the opposite of *rotten*. No other answer choice offers a comparable contrast.

46. **B is correct.** A *fire* produces *heat* much the same way that a *lamp* gives off *light*. Choice B is the only option that presents a similar relationship.

47. **A is correct.** The relationship in this sequence is one of degrees of contrast. *Browsing* denotes inspecting something in a leisurely and casual manner in the same way that *skimming* a book does. Both *shopping* and *reading* require a greater degree of commitment.

48. **D is correct.** The relationship presented in this sequence is one of usage. As a showcase for talent, a *recital* is used by a *pianist* in much the same way that an *exhibit* is used by an *artist*.

49. **D is correct.** This is a part-to-whole analogy. A *song* is a part of a *medley* as a *picture* is part of a *collage*. Choice A may seem correct, but the terms are reversed. A *book* can be part of a *series*, but a *series* cannot be a part of a *book*.

50. **C is correct.** The relationship in this question is one of an activity (*exercise*) and a result (*sweat*). Only choice C provides a comparable relationship.

51. **B is correct.** This analogy is one of a part to a whole. The *stamen* is a part of the *flower* in much the same way the *lens* is a part of the *eye*. Choice A is almost correct, except that it offers the whole before the part. Choice B is the only answer choice that presents a logical sequence in the right order.

52. **E is correct.** Flip the words: a *cartographer* makes *maps*. Similarly, a *baker* makes *cakes*. No other option presents the same relationship.

53. **C is correct.** A *baby* travels by *crawling* much the same way a *frog* travels by *jumping*. A *rock* only travels across the water by *skipping* (choice A) when thrown by a person. The correct answer does not rely on an outside influence.

54. **A is correct.** This analogy is one of usage. An *eraser* is used to clean a *chalkboard*, and in a similar way, a *mop* is used to clean a *floor*.

55. **C is correct.** This is an analogy of degrees of similarity. Flip the words and you will see that *fervent* is a more intense feeling than *eager* just as *ecstatic* is a more intense feeling than *pleased*. Choice D may seem correct, but the words appear in reverse order, from more intense to less intense. To be correct, *mad* would need to come before *enraged*.

56. **D is correct.** When *bread* deteriorates or gets old, it becomes *moldy*. Similarly, when *steel* becomes old or is left to deteriorate in the elements, it becomes *rusty*.

57. **B is correct.** Again, flip the words around and you will see that a *collie* is a particular type of *dog*, just as a *chameleon* is a particular type of *lizard*. Choice C is incorrect because *reptile* is too general.

58. **D is correct.** This sequence presents an object-to-activity analogy, also known as a tool-to-function analogy. A *chisel* is used for *carving* in the same way that a *blender* is used for *mixing*. No other option provides an appropriate comparison. Choices A and B are both incorrect for the same reason; they are used respectively in each activity, but are not the tool used to perform the activity. Choice C is incorrect because a car is used for driving, and choice E is incorrect because a stove or oven is used for cooking.

59. **B is correct.** This sequence is another example of an activity to a result analogy. When you *drop* something, it can *break*. Similarly, when you *stumble* you can *fall*. Choices A, C, and D are all synonyms, and choice E is too big a stretch.

60. **A is correct.** The relationship presented in this sequence is one of part to whole. *Ruby* is a shade of *red*, and *amber* is a shade of orange or *brown*. Since *orange* is not an option, choice A is the correct answer.

Section 2 Quantitative I

1. **C is correct.** $5 + 11 + 6 = 22$; $6 + 12 = 18$; and $22 - 18 = 4$.

2. **A is correct.** $4 \times 3 \times 6 \times 2 = 144$; $144 \div 24 = 6$.

3. **E is correct.**
    $^2/_3 x = 24$
    $^1/_3 x = 12$
    $x = 36$
    $^1/_4 x = 9$

4. **D is correct.** This problem needs to be completed in two steps. First, you need to determine what percent of chocolates have nuts and then subtract that from 100% to determine what percent do not have nuts. Dividing 9 by 45 gives the percent that have nuts, which is 20%. Subtracting that number from 100% gives the correct answer: 80% of the chocolates do not have nuts.

5. **D is correct.** To find the ratio of one number to another, create a fraction to show the relationship. In this problem there are 6 female club members in a total of 48 club members. The fraction that shows the relationship is $^6/_{48}$. This fraction can be simplified to $^1/_8$, the correct answer.

6. **E is correct.** Set this up as an equation. A number plus 2 times that number is 375.
    $x + 2x = 375$
    Solve for x.
    $3x = 375$
    $x = 125$
    So one number is 125 and the other is twice that, or 250.

7. **D is correct.** $6^3/_4\% = 0.0675$.

8. **A is correct.** Multiply $1,085.00 by 0.25 to get $271.25.

9. **A is correct.** By definition, a right angle is one that measures 90°.

10. **A is correct.** In an equilateral triangle, all three angles are equal. Since the sum of the angles in a triangle is 180°, each angle must be $180 \div 3 = 60°$.

11. **C is correct.** Solve the equation.
    $12a + 4a - 7a = 27$
    $16a - 7a = 27$
    $9a = 27$
    $a = 3$

12. **A is correct.** It costs n dollars to buy 10 boxes. Since $25 = 2.5 \times 10$, it will cost $2.5n$ dollars to buy 25 boxes.

13. **D is correct.** A straight angle measures 180°. So if $\angle 1$ is 33°, the other angle must measure $180° - 33° = 147°$.

14. **E is correct.** Calculate the number of square meters in the garden and then determine how many ounces of fertilizer are needed. The area of a rectangle is calculated by multiplying the length $\times$ the width. So the area of the garden is $4 \times 7 = 28$ m². Paul needs 2 oz of fertilizer for every square meter, so $2 \times 28 = 56$ oz.

15. **B is correct.** According to the chart, the plant is growing 3 inches taller each week. So in week 6, it should be $14 + 3 = 17$ inches tall.

16. **C is correct.** $0.80 + $0.20 + $0.30 = $1.30.

17. **A is correct.** To calculate the percent, divide the number of items answered correctly by the total number of items. $45 \div 75 = 0.60$. To change that to a percent, move the decimal point two places to the right and add the percent sign to get 60%.

18. **D is correct.** $^{16}/_4 = 4$; $6 \times {}^2/_3 = {}^{12}/_3 = 4$; $4 \div {}^1/_4 = 4 \times {}^4/_1 = 16$; $3 + 2 = 5$. However, ${}^1/_3 \times 4 = {}^4/_3$, which is not a whole number.

19. **B is correct.** In this problem you need to find $^1/_5$ of 55. $55 \div 5 = 11$.

20. **D is correct.** To find the perimeter of a rectangle, add the lengths of the four sides. In this instance, 11 meters + 11 meters + 3 meters + 3 meters = 28 meters, the correct answer.

21. **A is correct.** To find the average, add the numbers and divide by the number of numbers. In this problem the numbers add to 415. Dividing that by 5 gives an average of 83.

22. **E is correct.** Create an equation:

    Riverside = $2 \times$ Hillside -150
    $500 = 2x - 150$
    $750 = 2x$
    $325 = x$

23. **C is correct.** In this problem you know two of the three angles, one measuring 55° and the other measuring 90°, since the building forms a 90° angle with the ground. Together those two angles measure 145°. Since a triangle has a total of 180°, the third angle must measure 180° − 145° = 35°.

24. **D is correct.** 12 Red Delicious apples + 16 Granny Smith apples = 28 apples. 48 − 28 = 20 apples that are not Red Delicious or Granny Smith. $^{20}/_{48} = {}^5/_{12}$.

25. **D is correct.** 8% of $750 = 0.08 \times 750 = \$60$. $750 + \$60 = \$810$.

Section 3 Reading Comprehension

1. **E is correct.** As stated in the first two sentences, "Volcanoes are mountains, but they are very different from other mountains; they are not formed by folding and crumpling or by uplift and erosion. Instead, volcanoes are built by the accumulation of their own eruptive products—lava, bombs (crusted over lava blobs), ashflows, and tephra (airborne ash and dust)."

2. **B is correct.** As stated in the third paragraph, "How explosive an eruption is depends on how runny or sticky the magma is. . . . If magma is thick and sticky, gases cannot escape easily. Pressure builds up until the gases escape violently and explode." Choice A is wrong because if magma is thin and runny, "gases can escape easily from it," and when this type of magma erupts, "it flows out of the volcano." Choices C and D are both true of magma, but neither indicates how explosive an eruption will be. Choice E is wrong because magma that has erupted is called lava, regardless of the explosiveness of the eruption.

3. **D is correct.** The words in italics are scientific terms for which the author provides definitions within the text. ("A *volcano* is most commonly a conical hill or mountain built around a vent that connects with reservoirs of molten rock below the surface of the Earth." "Magma that has erupted is called *lava*.")

4. **A is correct.** The passage states that "Deep within the Earth it is so hot that some rocks slowly melt and become a thick flowing substance called *magma*." However, the passage does not mention the factors that contribute to hot temperatures deep inside the Earth. Choice B is answered in lines 22–37. Choice C is answered in lines 26–27. Choice D is answered in lines 16–18. Choice E is answered in lines 31–33.

5. **B is correct.** This passage explains how volcanoes are formed and the nature of volcanic eruptions using the scientific terminology and strictly factual presentation typical of information presented in a science textbook.

There is nothing timely about the information, so it is not likely to be from a newspaper article as in choice A. There is no evidence of a plot or characters, so you can easily eliminate choice C. The passage does not describe a particular volcano or its surroundings, so it is unlikely to be from a travel brochure as in choice D, and there is no mention of safety, so choice E cannot be correct.

6. **C is correct.** During a volcanic eruption, magma blasts into the air and breaks apart into pieces called tephra; thus choice E is true. As explained in the last paragraph, tephra can vary greatly in size (choice A), it can travel hundreds to thousands of kilometers downwind from a volcano (choice B), and large tephra typically falls back to the ground on or close to the volcano (choice D). Gases, not tephra, may be trapped in magma; therefore choice C is the only choice that is NOT true of tephra.

7. **C is correct.** Douglass makes this point in the very first sentence when he says, "I am one of those who believe that it is the mission of this war to free every slave in the United States." Choices A, B, and D might all be consequences of the Civil War, but in this speech Douglass mentions only freeing every slave in the United States as the mission of the war.

8. **D is correct.** Douglass believed that "the work of the American Anti-Slavery Society will not have been completed until the black man of the South, and the black men of the North, shall have been admitted, fully and completely, into the body politic of America." He specifically mentions that voting rights should be extended equally to all black men. He does not advocate voting rights only for black men in the South (choice B) and he does not mention that voting rights should be extended to everyone (choice E). Douglass advocates the abolition of slavery as the "mission of the war," but he believes that the work of the Anti-Slavery Society should go beyond this goal to the greater goal of setting the same conditions for voting for black men and white men.

9. **A is correct.** The *body politic* means "the people of a politically organized nation or state." To be fully and completely admitted to the body politic means to have all the rights accorded to any other citizen of the nation or state. Choices B, C, and D are rights and duties that are included in choice A. If black men were considered as a separate class of citizens, they would not be "fully and completely" admitted to the body politic.

10. **B is correct.** The passage is written in the first person and offers the views of the author on the subject of slavery and voting rights. The last paragraph makes it clear that the author is trying to convince members of the society that "whatever rule you adopt, whether of intelligence or wealth, as the condition of voting for whites, you shall apply it equally to the black man." He goes on to say that if "I am satisfied, and eternal justice is satisfied; liberty, fraternity, equality, are satisfied, and the country will move on harmoniously." As stated in the italic text at the start of the article, this speech was given at a meeting of the Anti-Slavery Society. It is unlikely that members of an Anti-Slavery Society would need to be convinced that slavery should be ended, so choice D can be eliminated. Choices A and C can also be eliminated because the passage is a statement of the author's opinions on the subject, not just an objective presentation of information about the horrors of slavery (choice A) or the progress of the war (choice C). Choice E is not correct because, while the passage mentions that granting voting rights to blacks will help the country "move on harmoniously," it does not explain how this will happen.

11. **C is correct.** The author describes the newly married pair as uncomfortable in their new clothes, unused to taking trips in a "fine" parlor-car, and embarrassed by the scrutiny of other passengers. He seems to like the unsophisticated couple and to be sympathetic toward their situation. The bride and groom may be embarrassed, but the author is not, so choice A is incorrect. Choices B, D, and E are all incorrect because nothing in the passage supports the idea that the author regards the couple with *disrespect* (meaning "discourtesy" or "rudeness"), *sorrow* (meaning "sadness"), or *scorn* (meaning "contempt" or "disdain").

12. **D is correct.** Both the bride and the groom were unaccustomed to wearing new clothes. The groom's face was "reddened from many days in the wind and sun." The bride had never traveled in a parlor car and she was clearly more used to cooking than to eating in a dining car. All of these clues point to the fact that the newlyweds were *unsophisticated* (meaning "innocent") country people. The fact that the bride thinks that a dollar is too much for them to spend on a meal indicates that the couple is not wealthy or well-to-do, so choice A is wrong. The passage mentions that the bride and groom "were evidently very happy," so choice B is wrong. Although the couple is described as being shy and embarrassed by the attention of other passengers, there is nothing to support the idea that they were either frightened (choice C) or unpleasant (choice E).

13. **E is correct.** The story takes place on a train crossing the plains of Texas. You can tell this from the fact that the groom asks his bride, "Have you ever been in a parlor-car before?" and then mentions that they will "go forward to the diner and get a big layout." Parlor-cars and dining cars are found on trains. Although the passage states that the newly married pair "had boarded this coach at San Antonio," the coach that is referred to is a car on a train, not a stage coach, so choice C is wrong. The groom mentions that "after a while we'll go forward to the diner," but, at the time this passage takes place, they have not yet gone to the diner to eat, so choice D is wrong. The couple has already boarded the train, so they cannot be in a hotel (choice A) or at a train station (choice B).

14. **A is correct.** Lines 17–18 states that "The glances he devoted to other passengers were furtive and shy." From this sentence you can tell that *furtive* must be something that goes with *shy*. Neither *friendly* nor *unabashed* (meaning "unembarrassed" or "not shy") works well with shy, so you can eliminate choices D and E. Similarly, you can eliminate choice C because *focused* means "clear and sharp," which is not commonly associated with *shy.* That leaves choice A, which is correct. A *furtive* glance is a secret or stealthy glance.

15. **D is correct.** The story is told in the third person by someone who is not a participant in the story. Therefore you can eliminate choices A, B, and C. In a story told by someone looking back on his life, the story would most likely be told in the first person (using "I" and "me" throughout). Because this story is told by someone who can see everything that is happening in the tale, but is not himself participating in the tale, it is most likely the work of an outside observer.

16. **C is correct.** This passage is actually the beginning of a short story. Its purpose is to introduce the characters and setting of the story to come. The passage is purely descriptive. There is no attempt to express an opinion (choice A), analyze information (choice B), or resolve a crisis (choice D). At this point in the story there is no conflict between the major characters. In fact, the bride and groom are described as "evidently very happy."

17. **B is correct.** If you can tell by simply looking at the bride that "she had cooked, and that she expected to cook, dutifully," then the bride most probably has the red, rough hands indicative of a life of hard work. Just looking at a person is unlikely to reveal whether that person expects to eat out regularly or has ever eaten in a restaurant before, so choices A and C are incorrect. Similarly, it is impossible to tell what a person wants to or might expect to learn about cooking by observation alone, so choices D and E are also incorrect.

18. **C is correct.** The purpose of this passage is to report on the work done by scientists to breed carrots with enhanced nutritional value. The researchers have selectively bred carrots in a rainbow of colors and studied the effects of the various plant pigments on the human body.

19. **D is correct.** The passage is intended to inform readers of developments in carrot breeding. The passage does not argue a point, nor does it contain any emotionally charged language; thus choices A and B can be eliminated. Nothing about the passage could be termed sentimental; and although the last sentence offers the opinion that colorful carrots will be a good addition to supermarket produce aisles, this is not enough to describe the entire passage as optimistic.

20. **B is correct**. As stated in lines 11–12, researchers have "selectively bred a rainbow of carrots—purple, red, yellow, even white." The only choice not mentioned is green.

21. **A is correct.** As stated in lines 16–18, "Red carrots derive their color mainly from lycopene, a type of carotene believed to guard against heart disease and some cancers." Xanthophyll (choice B) is found in yellow carrots. Anthocyanin (choice C) is the pigment found in purple carrots. Beta-carotene (choice D) is the pigment found in orange carrots. An antioxidant (choice E) is a substance that slows down oxidation and helps check deterioration.

22. **E is correct.** As stated in the passage, "In nature, different strains of carrots contain varying types and amounts of carotenoids—the pigments responsible for orange, yellow, and red colors." Choices A and D are incorrect because the passage states that colored carrots were eaten "more than 1,000 years ago in Afghanistan and 700 years ago in western Europe." Choice B is wrong because it is contradicted by the statement that "today's carrots provide consumers with 75 percent more beta-carotene than those available 25 years ago." Choice C is wrong because the last sentence says the colorful carrots get "a thumbs-up from taste testers."

23. **C is correct.** The passage reports on the work of agricultural research scientists as they attempt to breed nutrient-rich carrots. It has no characters or plot so it cannot be a short story. It is not the story of someone's life, so it cannot be a biography. It is not written for the purpose of promoting some doctrine or cause, so it does not fall into the category of propaganda. It is not primarily an expression of the opinion of the author, so it is not an editorial.

24. **C is correct.** Tone is the author's attitude toward a topic. It is created through details and language. The sense of this poem is that the narrator has returned to a place he once knew and finds himself "now a stranger" and laments the fact that nothing is as it used to be: "Not the sun that used to be, Not the tides that used to run." The best description of this tone is nostalgic, meaning "sentimental" or "evidencing bittersweet longing for things of the past." Words such as "shadowy crown," "dark and haunted wood," and "alas" are not consistent with a lighthearted, optimistic, or humorous tone, so you can rule out choices A, B, and E. The author's tone may be sad, but it is not hostile or angry as in choice D.

25. **D is correct.** The narrator of this poem is clearly an adult returning to a scene of his youth and feeling a sense of sadness at the transformation he observes. Old friends are "estranged," the sun is "not the sun that used to be," and the tides are "not the tides that used to run." Choice A is incorrect because the narrator is an adult, not a child. Choice B is incorrect because the narrator is not indifferent to what he sees. Choice C is incorrect because the narrator is not an outside observer as evidenced by the use of the pronoun "I" throughout. Choice E is incorrect because the narrator is recalling actual sights from his childhood, not dreams.

26. **E is correct.** The author's choice of the word *haunted*, which means "inhabited by the spirit of people and times gone by," serves to underscore the idea of memories of friendships past. Choices A and B do not fit the poem at all. Choice C reflects one meaning of the word *haunted*, but misses the point that the poem is about memories, not spirits. Choice D is incorrect because the poem is sad and nostalgic, not dark and gloomy.

27. **B is correct.** The theme of the poem is the main idea the poem conveys. In this case, the theme is the passage of time. The poem mentions both the sun (choice A) and the tide (choice C), but each shows only that time has passed. There is no mention of autumn (choice D) in this poem. In fact, the only reference to the season is the description of the oaks as "fresh and green," an indication of spring rather than fall. The poem is not about renewal (choice E), but rather about the changes brought about by the passage of time.

28. **A is correct.** As stated in the second paragraph, the sculpture was commissioned to be completed in 1876, "to commemorate the centennial of the American Declaration of Independence." Choice B is incorrect because the Statue commemorated the friendship between the United States and France during the Revolutionary War, not the Civil War. Choice C is incorrect because the passage mentions only friendship between France and the United States; there is no mention of hostility between the two nations. Choice D is incorrect because the Statue was supposed to have been completed in 1876, which is 24 years before the start of the twentieth century. Choice E is wrong because there is no mention of a new era of international cooperation.

29. **B is correct.** Eiffel was called in to *attend to* or *focus on* the structural issues of the sculpture. All of the choices are synonyms for the word *address*, but only choice B fits the context of this sentence.

30. **C is correct.** When Pulitzer saw that fundraising for the pedestal was lagging, he "used the editorial pages of his newspaper *The World* to aid in the fundraising effort." He criticized the rich for failing to give enough to finance the pedestal, and he criticized the middle class for relying on the rich to provide all the funds needed for the pedestal. These actions imply that Pulitzer was enthusiastic in his support of the Statue and did his best to convince others to support it as well.

31. **D is correct.** As stated in the first paragraph, the Statue was a gift to the people of the United States "in recognition of the friendship established between the two nations during the American Revolution." Over the years, however, "the Statue of Liberty has come to symbolize freedom and democracy as well as this international friendship." There is no mention in the passage of a treaty between the United States and France.

32. **D is correct.** Alexandre Gustave Eiffel, who designed the Eiffel Tower, was called in "to address the structural issues of Bartholdi's colossal sculpture," not to help raise money for the project. Choice A is mentioned in line 17. Choice B is mentioned in lines 12–14. Choice C is mentioned in lines 27–35. Choice E can be ascertained by noting that the statue was completed in France in July 1884 and financing for the pedestal was completed in August 1885, more than a year later.

33. **A is correct.** This passage is entirely devoted to telling the history of the Statue of Liberty from design to financing to completion. It does not describe how Bartholdi designed the statue (choice B), but only tells that he did so with the help of Eiffel. It mentions fundraising in the United States and France (choice C), but is not devoted to comparing them. Likewise, it mentions how Pulitzer used newspaper editorials to increase donations (choice D), but makes no attempt to defend this practice. Only one sentence in the entire passage is devoted to assembling the statue on her pedestal (choice E).

34. **E is correct.** This informational article is most likely to be found in a textbook. Choices A and B are easily eliminated because the passage is fact, not fiction. Choice C is incorrect because the passage tells of events that happened long ago, not timely current events as would be reported in a newspaper article. The passage does not describe the engineering aspects of the Statue, so choice D is not a likely choice.

35. **B is correct.** Bixby never gave the narrator a chance to become complacent about what he had learned. There were always more twists and turns to be studied and more shapes to be learned. The narrator may have thought that Bixby knew the river better than any other pilot, but that is not the meaning of this particular quote.

36. **C is correct.** The narrator is comparing his knowledge of the shape of Walnut Bend to his knowledge of his grandmother's opinion of protoplasm. Since it is highly unlikely that the narrator knows anything about his grandmother's opinion of protoplasm (or even whether she has any such opinion), you can infer that he also knows nothing about the shape of Walnut Bend.

37. **D is correct.** In describing Bixby's response to the narrator's not knowing the shape of Walnut Bend, the author says, "My gunpowdery chief went off with a bang, of course, and then went on loading and firing until he was out of adjectives." The word that best describes something that goes off with a bang and keeps on firing until the ammunition runs out is *explosive*.

38. **E is correct.** Upon learning that he must know all the variations of shape in the banks of the river as well as he knows "the shape of the front hall at home," the narrator replies, "I wish I was dead!" This reaction can best be described as "hopelessness" or "despair."

39. **A is correct.** Tone is the writer's attitude toward a topic. It is revealed through the writer's word choice. Statements such as "a curiously inanimate mass of lumber it was" and "He might as well have asked me my grandmother's opinion of protoplasm" help to reveal the humor with which the author regards the situation.

40. **C is correct.** The passage is written in the first person and appears to describe events that occurred in the life of the author. These are characteristic of autobiographical writing.

Section 4 Quantitative II

1. **C is correct.** 2% is the equivalent of 0.02; $0.02 \times 5{,}000 = 100$.

2. **C is correct.**
   $$\begin{array}{r} 3.50 \\ \times\, 0.93 \\ \hline 1\ 05 \\ 31\ 5\quad \\ \hline 3.255 \end{array}$$

3. **D is correct.** $^{32}/_4 = 8$; $4 \times {}^8/_{16} = {}^{32}/_{16} = 2$; $8 \div {}^1/_8 = 8 \times {}^8/_1 = 64$; $6.4 + 11.6 = 18$. However, ${}^5/_{12} \times 8 = {}^{40}/_{12} = 3\,{}^1/_3$, which is not a whole number.

4. **D is correct.** $62\,{}^1/_2\% = 0.625$.

5. **B is correct.** It costs m dollars to buy 60 nails. 24 nails are ${}^2/_5$ of 60, so the cost of 24 nails will be ${}^2/_5 \times m = {}^{2m}/_5$ dollars.

6. **D is correct.**
$5/12x = 50$
$1/12x = 10$
$x = 120$
$1/2x = 60$

7. **A is correct.** Perform operations in the parentheses first, then the exponents, and then the remaining operations.
$16 + 3(-4)$
$16 + (-12) = 4$

8. **C is correct.** When calculating the average or mean, add the numbers and then divide by the number of numbers. The sum of 24, 36, 18, 30, 90, and 690 is 888, divided by 6 is 148.

9. **B is correct.** This item is set up as a proportion. To solve for n, cross-multiply so that the problem becomes $25n = 1,000$. $n = 1,000 \div 25 = 40$.

10. **A is correct.** $5 \times 4 + 4 = 24$. $6 \times 8 = 48$, and $48 \div 24 = 2$.

11. **E is correct.** $48 \div 6 \times 8 \times 8 = 512$. $512 \div 16 = 32$.

12. **B is correct.** $2 + 4/25 = 2.16$.
The fraction $4/25 = 16/100 = 0.16$, so $2 + 4/25 = 2.16$.

13. **C is correct.** $1/3 + 1/6 = 2/6 + 1/6 = 3/6$.
$3/6 = 1/2$, so if Karen has used $1/2$ of her tickets, $1/2$ are left.

14. **D is correct.**
$$12 \div 3\frac{3}{4} = \frac{12}{1} \div \frac{15}{4}$$
$$= \frac{12}{1} \times \frac{4}{15}$$
$$= \frac{48}{15} = 3\frac{3}{15} = 3\frac{1}{5}$$

15. **D is correct.** $\$23.95 \times 0.065 = \$1.56$. $\$23.95 + \$1.56 = \$25.51$.

16. **B is correct.** Set up a proportion:
$30/2 = n/7$
$n = 105$

17. **E is correct.** 1 mile = 5,280 ft. If the width of the park is 880 feet, then two sides of the park measure 880 + 880 = 1,760 ft. 5,280 − 1,760 = 3,520. The other two sides of the park must each measure one-half of 3,520 ft. 3,520 ÷ 2 = 1,760 ft.

18. **D is correct.**
$10 \times (0.38 + 3.5) + 5.2$
$= (10 \times 0.38) + (10 \times 3.5) + 5.2$
$= 3.8 + 35 + 5.2$
$= 44$

19. **A is correct.** The rental company charges $25 + $6 per hour. The equation that represents this situation is $25 + 6h$ where h = number of hours.

20. **D is correct.** From midnight to 11:00 A.M. there are 11 hours. If the temperature rose 2°C each hour, then it rose 22°C.
$(-12) + 22 = 10°C$

21. **D is correct.** 1 mile = 5,280 ft, so 4 miles = 21,120 ft. 1 yd = 3 ft, so 21,120 ÷ 3 = 7,040 yd.

22. **E is correct.**
    $25^3/_5 \times 1^1/_2$
    $= {}^{128}/_5 \times {}^3/_2$
    $= {}^{384}/_{10} = 38^4/_{10} = 38^2/_5$

23. **B is correct.**
    23.4 ÷ 6 = 3.9

24. **D is correct.**
    $11^1/_2 - 9^3/_4 = 11^2/_4 - 9^3/_4$
    $= 10^6/_4 - 9^3/_4$
    $= 1^3/_4$

25. **D is correct.** Find the volume by multiplying length × width × height. Since all of these dimensions on a cube are the same, multiply:
    $5 \times 5 \times 5 = 125$ in³