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SSAT Middle Level Practice Test

Test 8

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WHAT'S INSIDE

Writing Sample	1 essay prompt
Verbal	60 questions
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Questions only. The answer key is not included. Work under timed conditions, then check any question you're unsure about with a step-by-step explanation.

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8

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: The most important thing you want to change about your hometown.

Directions: If you could change one important thing about your hometown, what would you change? Use reasons and specific examples to support your answer.

GO ON TO THE NEXT SECTION

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

1. CONTORT:
   (A) deform
   (B) color
   (C) amuse
   (D) occupy
   (E) bend
2. GRIM:
   (A) frown
   (B) harsh
   (C) relaxing
   (D) irresponsible
   (E) clean
3. ALOOF:
   (A) distant
   (B) pitiful
   (C) weird
   (D) lasting
   (E) foreign
4. VACANT:
   (A) varied
   (B) dreary
   (C) rented
   (D) huge
   (E) stark
5. AUSTERE:
   (A) severe
   (B) miserly
   (C) ornate
   (D) empty
   (E) plentiful
6. OSTENTATIOUS:
   (A) showy
   (B) shrewd
   (C) sane
   (D) rapid
   (E) strong

7. FORTIFY:
   (A) strengthen
   (B) diffuse
   (C) surround
   (D) revere
   (E) emphasize
8. PROCLIVITY:
   (A) proprietary
   (B) propensity
   (C) tend
   (D) authenticity
   (E) efficiency
9. FORMIDABLE:
   (A) trainable
   (B) talented
   (C) fear
   (D) powerful
   (E) malleable
10. STYMIE:
   (A) reason
   (B) construct
   (C) swindle
   (D) depress
   (E) frustrate
11. NOVICE:
   (A) expression
   (B) beginner
   (C) agreement
   (D) beggar
   (E) burden
12. FABRICATE:
   (A) decorate
   (B) falsify
   (C) deter
   (D) fasten
   (E) stitch
13. FRIENDLY:
   (A) responsive
   (B) congenital
   (C) amiable
   (D) sanctimonious
   (E) ambivalent
14. GENRE:
   (A) principle
   (B) generation
   (C) category
   (D) purpose
   (E) proposal
15. SUMMIT:
   (A) essence
   (B) conference
   (C) outline
   (D) valley
   (E) nadir
16. DEFTLY:
   (A) randomly
   (B) wilfully
   (C) skillfully
   (D) closely
   (E) quickly
17. PROSPER:
   (A) affect
   (B) accomplish
   (C) gather
   (D) thrive
   (E) strive
18. SPURN:
   (A) return
   (B) betray
   (C) cross
   (D) hinder
   (E) reject
19. COMPLIMENTARY:
   (A) free
   (B) matched
   (C) secondary
   (D) charming
   (E) attractive
20. VISAGE:
   (A) wound
   (B) bandage
   (C) encounter
   (D) station
   (E) face

21. BIAS:
(A) conversion
(B) resolution
(C) conclusion
(D) preference
(E) predicament

22. INHABIT:
(A) surround
(B) exhibit
(C) confirm
(D) continue
(E) dwell

23. GENEROUS:
(A) sociable
(B) garrulous
(C) benevolent
(D) beneficial
(E) precocious

24. AGGREGATE:
(A) equipment
(B) organization
(C) total
(D) median
(E) agent

25. IMPLEMENT:
(A) component
(B) instrument
(C) property
(D) idea
(E) detail

26. GRACIOUSLY:
(A) kindly
(B) easily
(C) comfortably
(D) readily
(E) gratefully

27. MEANDER:
(A) review
(B) wander
(C) exercise
(D) delete
(E) manage

28. CONCUR:
(A) agree
(B) contribute
(C) congeal
(D) conspire
(E) alleviate

29. AGILE:
(A) provocative
(B) nimble
(C) willful
(D) listless
(E) able

30. ADDITION:
(A) inception
(B) antecedent
(C) nucleus
(D) origin
(E) inclusion

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	**Answer**
Ann carried the box carefully so that she would not _____ the pretty glasses.	● Ⓑ Ⓒ Ⓓ

(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) afraid; relieved

(B) happy; confused

(C) sleepy; sad

(D) sorry; angry

31. Waggish is to laughs as _____.
    (A) sad is to tears
    (B) risible is to yawns
    (C) bilious is to smiles
    (D) morbid is to concern
    (E) ribald is to sneers
32. Diaphanous is to veils as _____.
    (A) fishing is to net
    (B) noisome is to clouds
    (C) gossamer is to cobwebs
    (D) bulky is to showers
    (E) abortive is to breezes
33. Microcosm is to macrocosm as _____.
    (A) granite is to touchstone
    (B) plenty is to lack
    (C) diameter is to edge
    (D) glutton is to craven
    (E) understand is to orbit
34. Homily is to church as _____.
    (A) aria is to horse show
    (B) sermon is to air show
    (C) monologue is to talkshow
    (D) eulogy is to celebrate
    (E) diatribe is to game show
35. Mnemonic is to memory as _____.
    (A) glasses are to vision
    (B) earmuffs are to movement
    (C) trousers are to speech
    (D) denim are to jacket
    (E) blinders are to hearing
36. Healing is to health as _____.
    (A) mercury is to speed
    (B) therapeutic is to recovery
    (C) pragmatic is to avidity
    (D) charity is to profit
    (E) biased is to justice
37. Arbitrate is to dispute as _____.
    (A) regard is to problem
    (B) exacerbate is to problem
    (C) management is to union
    (D) solve is to mystery
    (E) organize is to labor
38. Tearjerker is to maudlin as _____.
    (A) farce is to hilarious
    (B) comedy is to wrenching
    (C) tragedy is to risible
    (D) opera is to prurient
    (E) satire is to heartrending
39. Passion is to devotion as _____.
    (A) harangue is to restrained
    (B) feisty is to mousy
    (C) rapidity is to movement
    (D) liturgy is to ribald
    (E) concern is to interest
40. Klutz is to inept as _____.
    (A) pundit is to ignorant
    (B) aficionado is to blase
    (C) learned is to possess

(D) bigot is to intolerant
(E) dynamo is to supine

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

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

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

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

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

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

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

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

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

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

51. Drive is to street as _____.
(A) run is to school
(B) eat is to snack
(C) walk is to path
(D) study is to book
(E) fly is to bird

52. Mile is to distance as minute is to _____.
(A) quickness
(B) time
(C) speed
(D) rate
(E) hour

53. Kick is to foot as _____.
(A) chew is to mouth
(B) content is to book
(C) swim is to arms
(D) back is to float
(E) grind is to mill

54. Feed is to nourish as _____.
(A) travel is to skate
(B) water is to hydrate
(C) throw is to fetch

(D) trap is to bury

(E) giggle is to laugh

55. Plum is to prune as _____.

(A) hen is to rooster

(B) cream is to milk

(C) corn is to pop

(D) grape is to raisin

(E) pear is to pineapple

56. Maple tree is to syrup as _____.

(A) orange is to juice

(B) chip is to chocolate

(C) wheat is to bread

(D) seed is to grass

(E) coffee is to bean

57. Envious is to jealous as _____.

(A) entertained is to amused

(B) happy is to joyful

(C) distressed is to dismayed

(D) sorry is to regretful

(E) melancholic is to mournful

58. Knitter is to needles as _____.

(A) chef is to apron

(B) singer is to recording

(C) boxer is to gloves

(D) diver is to ocean

(E) teacher is to test

59. Claw is to cat as _____.

(A) fang is to snake

(B) tail is to donkey

(C) shell is to turtle

(D) hand is to clock

(E) talon is to eagle

60. Surprise is to startle _____.

(A) need is to want

(B) mix is to bake

(C) inflate is to breathe

(D) destroy is to ruin

(E) choose is to grab

GO ON TO THE NEXT SECTION

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? (A) 0 (B) 1 (C) 2 (D) 3	**Answer** (A) (B) ● (D)

1. If $h = 4$, and h, i and j are consecutive even integers and $h < i < j$, what is $h + i + j$?
   (A) 3
   (B) 5
   (C) 9
   (D) 10
   (E) 18

2. If $x = \frac{1}{2} + \frac{1}{3} + \frac{1}{4}$ and $y = \frac{1}{2} + \frac{2}{3} + \frac{3}{2}$, then $x + y =$ _____.
   (A) 3
   (B) 1
   (C) $\frac{2}{3}$
   (D) $\frac{1}{24}$
   (E) $\frac{1}{3}$

3. If the product of 412.7 and 100 is rounded to the nearest hundred, the answer will be _____.
   (A) 400
   (B) 4,100
   (C) 4,127
   (D) 41,270
   (E) 41,300

4. If $\frac{4}{5}$ of a number is 16, then $\frac{1}{5}$ of that number is _____.
   (A) 4
   (B) 7
   (C) 21
   (D) 35
   (E) 112

5. $14 + 3 \times 7 + (12 \div 3) =$ _____.
   (A) 140
   (B) 125
   (C) $65\frac{1}{2}$
   (D) 39
   (E) 20

6. The perimeter of a square with area 100 is _____.
   (A) 10
   (B) 25
   (C) 40
   (D) 100
   (E) 1,000

Questions 7-8 refer to the following chart.

Money Raised from Candy Sale

Cost of Candy	$ 1.00	$ 5.00	$ 10.00	$ 15.00
# Sold	150	15	20	5

7. How much more money was raised by the $ 10.00 candy than by the $ 5.00 candy?
   (A) $ 32
   (B) $ 50
   (C) $ 75
   (D) $ 125
   (E) $ 200
8. The money raised by the $ 15.00 candy is approximately what percent of the total money raised from the candy sale?
   (A) 15%
   (B) 20%
   (C) 30%
   (D) 45%
   (E) 50%
9. An art gallery has three collections: modern art, sculpture, and photography. If the 24 items that make up the modern art collection represent 25% of the total number of items in the gallery, then the average number of items in each of the other two collections is _____.
   (A) 8
   (B) 24
   (C) 36
   (D) 96
   (E) 288
10. At Calvin U. Smith Elementary School, the ratio of students to teachers is 7:1. What fractional part of the entire population at the school is teachers?
   (A) $\frac{1}{7}$
   (B) $\frac{1}{9}$
   (C) $\frac{1}{8}$
   (D) $\frac{8}{1}$
   (E) $\frac{9}{1}$
11. Anita bowled a 100, 120, and an 88 on her first three games. What must her score be on the fourth game to raise her average for the day to a 130?
   (A) 80
   (B) 95
   (C) $102\frac{2}{3}$
   (D) 145
   (E) 212
12. $\frac{6}{7}$ is closest in value to which of the following?
   (A) 0.20
   (B) 0.30
   (C) 0.60
   (D) 0.80
   (E) 0.90
13. If ten rolls of film can be purchased for m dollars, how many rolls can be purchased for n dollars?
   (A) $\frac{10n}{m}$
   (B) $\frac{nm}{10}$
   (C) $\frac{10}{mn}$
   (D) $\frac{m}{10n}$
   (E) $\frac{10m}{n}$
14. All numbers divisible by both 6 and by 15 are also divisible by _____.
   (A) 3
   (B) 7
   (C) 8
   (D) 9
   (E) 10
15. The ratio of rhubarb plants to tomato plants in Jim's garden is 4 to 5. If there

is a total of 45 rhubarb and tomato plants all together, how many of these plants are rhubarb plants?

(A) 4

(B) 5

(C) 9

(D) 20

(E) 25

16. If m is a positive integer, and if $3 + 16 \div m$ is an integer less than 19, which of the following must be true of m?

(A) $m = 19$

(B) m is even

(C) $m = 16$

(D) m is a prime number

(E) m is a multiple of four

17. If an item that is discounted by 20% still costs less than \$28.00, the original price of the item must be _____.

(A) less than \$3.50

(B) less than \$7.00

(C) less than \$35.00

(D) equal to \$35.00

(E) more than \$35.00

18. What is the perimeter of triangle MNO?

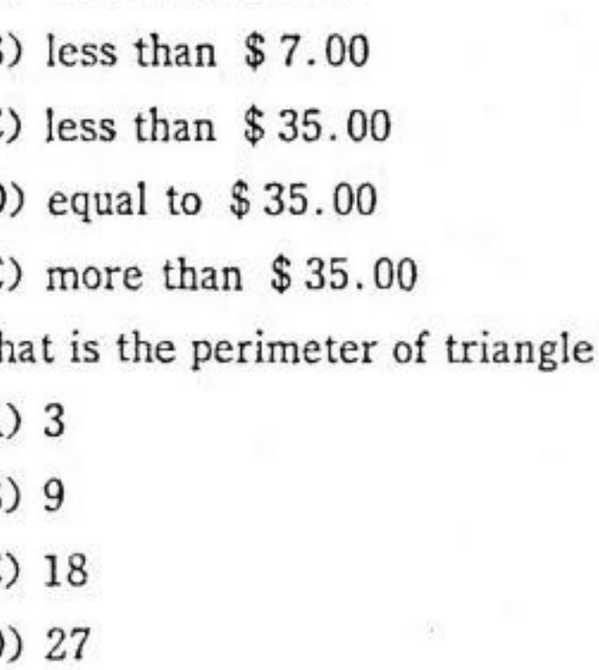
(A) 3

(B) 9

(C) 18

(D) 27

(E) It cannot be determined from the information given.



Questions 19-20 refer to the following definition.

19. For all integers x, $£x = (\frac{x}{x-1}) + 1$,

$£4 =$ _____.

(A) $1\frac{1}{3}$

(B) 2

(C) $2\frac{1}{3}$

(D) 4

(E) 6

20. $\frac{1}{2}(£4) =$ _____.

(A) $\frac{4}{3}$

(B) $1\frac{1}{6}$

(C) 2

(D) $2\frac{1}{3}$

(E) $4\frac{2}{3}$

21. If one pipe can fill a tank in $1\frac{1}{2}$ hours. And another can fill the same tank in 45 minutes, how long will it take for the two pipes to fill the tank together?

(A) $\frac{1}{3}$ hour

(B) $\frac{1}{2}$ hour

(C) $\frac{5}{6}$ hour

(D) 1 hour

(E) $1\frac{1}{2}$ hours

22. A baseball team has won 50 games out of 75 played. It has 45 games still to play. How many of these must the team win to make its record for the season 60%?

(A) 20

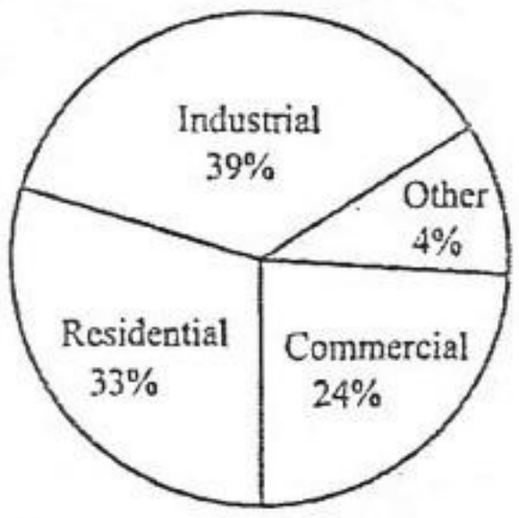
(B) 22

(C) 25

(D) 30

(E) 35

DAILY OIL CONSUMPTION



23. If nine million barrels of oil are consumed daily in the United States, how many barrels are required to meet commercial and industrial needs?

(A) 2,840,000

(B) 3,420,000

(C) 4.750,000

(D) 5,670,000

(E) 7,400,000

24. Areal estate investor buys a house and lot for $44,000. He pays $1,250 to have it painted. $1,750 to fix the plumbing, and $1,000 for grading a driveway. At what price must he sell the property in order to make a 12% profit?

(A) $53,760

(B) $52,800

(C) $52,000

(D) $49,760

(E) $44,480

25. If $a=4$, $b=2$, $c=3$ and $d=5$, the value of $\sqrt{b(d+a)-b(c+a)}$ is _____.

(A) 2

(B) 3.5

(C) 4

(D) $\sqrt{20}$

(E) 50

GO ON TO THE NEXT SECTION

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

Although it is called Central Park, New York City's great green space has no "center"—no formal walkway down the middle of the park, no central monument or body of water, no single orienting feature. The paths wind, the landscape constantly shifts and changes, the sections spill into one another in a seemingly random manner.

(5) But this "decentering" was precisely the intent of the park's innovative design. Made to look as natural as possible, Frederick Law Olmsted's 1858 plan for central Park had as its main goal the creation of a democratic playground—a place with many centers to reflect the multiplicity of its uses and users. Olmsted designed the park to allow interaction among the various members of society, without giving preference to one

(10) group or class. Thus, Olmsted's ideal of a "commonplace civilization" could be realized.

1. In lines 3-5, the author describes specific park features in order to _____.
   (A) present both sides of an argument
   (B) suggest the organization of the rest of the passage
   (C) provide evidence that the park has no center
   (D) demonstrate how large the park is
   (E) show how well the author knows the park
2. The main idea of this passage is that _____.
   (A) New York City is a democratic city
   (B) Olmsted was a brilliant designer
   (C) More parks should be designed without centers
   (D) Central Park is used by many people for many different purposes
   (E) Central Park is democratic by design
3. The passage suggests that Olmsted's design _____.
   (A) was like most other parks being designed at the time
   (B) was radically different from other park designs
   (C) was initially very unpopular with New Yorkers

(D) was inspired by similar parks in Europe

(E) did not succeed in creating a democratic playground

4. The word commonplace as used in line 10 most nearly means _____.

(A) inclusive (B) ordinary (C) mediocre

(D) normal (E) trite

Passage 2

An intelligent and daring young woman who spoke many languages, Alexandrine Tinne seems to have been one of the more unusual explorers who ever lived. She was the daughter of a wealthy Dutch merchant and a member of the Dutch aristocracy. Her father died when she was five, leaving her the richest heiress in the Netherlands at that time.

When she was grown up, after traveling throughout Europe. Tinne explored various parts of north central Africa. In 1863 and 1864, she charted the area around Bahrel Ghazal, a river system that flows into the Nile. During this expedition, the group was struck with illness. One of the scientists died of fever in April of 1864, and Tinne's mother, who was also with the group, died in June. Tinne must have been a healthy young woman to survive. Her expedition provided scientists with new and valuable information about the plants, animals, geology, and climate of this part of Africa. Later, traveling in Algeria and Tunisia, Tinne became fascinated by the desert and the people who lived there. In 1869, she set out on an expedition across the Sahara Desert. Unfortunately, this remarkable explorer was murdered by inhabitants of the desert during these travels. It was reported that they believed that her iron water tanks were filled with gold.

5. As used in the passage, "charted" means _____.

(A) erased (B) invented (C) changed

(D) carried (E) mapped

6. The passage suggests Tinne's expeditions were important mainly because she _____.

(A) collected new scientific information

(B) died before she could finish her work

(C) enjoyed the warmth of the desert and meeting interesting people

(D) took her mother along with her

(E) could communicate in many languages

7. The Bahr el Ghazal river system is in _____.

(A) Asia (B) Antarctica (C) Africa

(D) South America (E) Europe

8. The passage implies Tinne was murdered _____.

(A) because it was thought she had wealth that could be stolen

(B) because the murderers did not like Europeans

(C) because she was careless about guarding her group
(D) so that no one would ever explore the area again
(E) so that her seientific knowledge could be stolen

9. Which of the following best describes the author's attitude toward Tinne's actions?
(A) Indifference (B) Skepticism (C) Admiration
(D) Sadness (E) Envy

Passage 3

The painter Georgia O'Keeffe was born in Wisconsin in 1887, and grew up on her family's farm. At seventeen she left for Chicago and New York but she never lost her bond with the land. Like most painters, O'Keeffe painted the things that were most important to her, and she became famous for her simplified paintings of nature. During a visit to New Mexico in 1929, O'Keeffe was moved by the desert's stark beauty, and she began to paint many of its images. From about 1930 until her death in 1986, her true home was in the western desert, and bleached bones, barren hills, and colorful flowers were her characteristic subjects.

O'Keeffe is widely considered to have been a pioneering American modernist painter. While most early modern American artists were strongly influenced by European art, O'Keeffe's position was more independent.

Almost from the beginning, her work was more identifiably American—in its simplified and idealized treatment of color, light, space, and natural forms. Her paintings are generally considered "semiabstract", because, while they often depict recognizable images and objects, they don't present those images in a very detailed or realistic way. Rather, the colors and shapes in her paintings are often so reduced and simplified that they begin to take on a life of their own, independent from the real-life objects they are taken from.

10. The author's tone in this passage could best be described as _____.
(A) serene (B) bitter (C) admiring
(D) neutral (E) critical

11. According to the passage, all of the following strongly influenced O'Keeffe's paintings EXCEPT _____.
(A) the appearance of the natural landscape
(B) the work of artists in other countries
(C) animal and plant forms
(D) her life in the West
(E) her rural upbringing

12. O'Keeffe's relationship to nature is most similar to _____.
(A) a student's relationship to a part-time job
(B) a photographer's relationship to a model
(C) a writer's relationship to a publisher

(D) a carpenter's relationship to a hammer

(E) a sculptor's relationship to an art dealer

13. O'Keeffe's paintings have been called "semiabstract" because they _____.

(A) refer directly to real-life activities

(B) involve a carefully realistic use of color and light

(C) depict common, everyday things

(D) show recognizable scenes from nature

(E) depict familial things in an unrealistic way

14. According to the passage, O'Keeffe is considered an artistic pioneer because _____.

(A) her paintings had a definite American style

(B) her work became influential in Europe

(C) her work was very abstract

(D) she painted the American Southwest

(E) she painted things that were familiar to her

15. The passage's main point about O'Keeffe is that she _____.

(A) never developed fully enough as an abstract artist

(B) was the best painter of her generation

(C) used colors and shapes that are too reduced and simple

(D) was a distinctive modern American painter

(E) liked to paint only what was familiar to her

16. It can be inferred from the passage that modern European art of the time _____.

(A) approached colors in a semiabstract manner

(B) was not influenced by rural landscapes

(C) was extremely abstract

(D) did not portray natural shapes in a simple, idealistic manner

(E) did not depict images of the desert

Passage 4

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), ash flows, 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 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 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 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. 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, 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 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 from the vent by wind. Volcanic ash, the smallest tephra fragments, can travel hundreds to thousands of kilometers downwind from a volcano.

17. A primary difference between volcanoes and other mountains is in _____.
    (A) their ruggedness (B) their age (C) where they are located
    (D) how they are formed (E) their height
18. A volcanic eruption is likely to be most explosive if magma _____.
    (A) is thick and sticky
    (B) punches out through fissures in the Earth's surface
    (C) becomes lave
    (D) rises and collects in magma chambers
    (E) in thin and runny
19. The author uses italic print primarily to _____.
    (A) point out foreign words
    (B) highlight important terms that are defined in the text
    (C) indicate words that are difficult to pronounce
    (D) indicate words that are not necessary to understanding the passage
    (E) emphasize words that are used in an unusual way
20. All of the following can be explicitly answered by the passage EXCEPT: _____?
    (A) As dangerous as eruptions can be, why do lava flows rarely kill people
    (B) Why does magma rise and collect in chambers
    (C) Why does pressure build up in magma that is thick and sticky
    (D) Why are some volcanic eruptions explosive while others are not
    (E) What factors contribute to hot temperatures deep inside the Earth
21. This passage would most likely appear in _____.
    (A) a travel brochure (B) an adventure novel (C) a safety manual
    (D) a science textbook (E) a newspaper
22. Which of the following statements is NOT true of tephra?
    (A) It can be found trapped in magma.
    (B) It can range in size from tiny particles of ash to huge boulders.
    (C) It can travel thousands of kilometers from a volcano.

(D) It is the term for rock fragments erupted into the air by volcanoes.
(E) Large tephra falls on or close to a volcano.

Passage 5

Manatees and dugongs, also known as sea cows, belong to the scientific order Sirenia. In ancient mythology, "siren" was a term used for monsters or sea nymphs who lured sailors and their ships to treacherous rocks and shipwreck with mesmerizing songs. Throughout history, sailors sometimes thought they were seeing mermaids when they were probably seeing manatees or dugongs. With a little imagination, manatees have an uncanny resemblance to human form that could only increase after long months at sea. In fact, manatees and dugongs may have helped to perpetuate the myth of mermaids. Like the mythological creatures for which they were named, all sirenians living on earth today are vulnerable to extinction.

Manatees and dugongs are the only completely aquatic mammals that are herbivores. Unlike the other marine mammals (dolphins, whales, seals, sea lions, sea otters, walruses, and polar bears) sirenians eat only seagrasses and other aquatic vegetation. Unlike other marine mammals, sirenians have an extremely low metabolism and zero tolerance for cold water. Like dolphins and whales, manatees and dugongs are totally aquatic mammals that never leave the water—not even to give birth. The combination of these factors means that sirenians are restricted to warm shallow coastal waters, estuaries, and rivers, with healthy ecosystems that support large amounts of seagrass and other vegetation.

The average adult manatee is about three meters (9.8 feet) long and weighs between 362-544 kilograms (800-1,200 pounds). It is estimated that a manatee can eat about 10%-15% of its body weight in vegetation daily. So, for example, a 453 kilogram (1,000 pound) manatee would probably eat between 45-68 kilograms (100-150 pounds) of sea grass and water hyacinth a day!

23. Paragraph 1 is primarily concerned with _____.
(A) a comparison between manatees and dugongs
(B) how manatees cause shipwrecks
(C) the similarities between manatees and mermaids
(D) the imagination of manatees
(E) the origin of the scientific classification Sirenia

24. In the article, "mesmerizing" most nearly means _____.
(A) high pitched (B) discordant (C) mellifluous
(D) mysterious (E) hypnotic

25. The passage supports which of the following conclusions?
(A) All sirenians are endangered.
(B) Because of their low metabolism, manatees tolerate cold water well.

(C) Manatees are like other marine mammals in their diet.

(D) Manatees leave the water only to give birth.

(E) Mermaids were classified as sirenians.

26. The author develops paragraph 2 by presenting _____.

(A) an opinion and reasons why it is held

(B) a hypothesis and data to prove it

(C) two sides of an issue

(D) a thesis followed by specific examples

(E) a description of similarities and differences

27. According to the passage, manatees prefer the shallow coastal waters of Florida because of which of the following?

Ⅰ. Availability of vegetation

Ⅱ. Favorable water temperatures

Ⅲ. Safety

(A) Ⅰ only

(B) Ⅱ only

(C) Ⅲ only

(D) Ⅰ and Ⅱ only

(E) Ⅰ, Ⅱ and Ⅲ

28. Which of the following represents the number of pounds of food an average adult manatee consumes in a day?

(A) 10-15 (B) 100-150 (C) 352-544

(D) 800-1,000 (E) 1,000-1,200

Passage 6

You know, of course, that in China the Emperor is a Chinaman, and all the people around him are Chinamen too. It happened a good many years ago, but that's just why it's worthwhile to hear the story, before it is forgotten. The Emperor's palace was the most splendid in the world; entirely and altogether made of porcelain, so costly, but so brittle, so difficult to handle that one had to be terribly careful. In the garden were to be seen the strangest flowers, and to the most splendid of them silver bells were tied, which tinkled so that nobody should pass by without noticing the flowers. Oh, the Emperor's garden had been laid out very smartly, and it extended so far that the gardener himself didn't know where the end was. If you went on and on, you came into the loveliest forest with high trees and deep lakes. The forest went right down to the sea, which was blue and deep; tall ships could sail right in under the branches of the trees; and in the trees lived a nightingale, which sang so sweetly that

even the poor fisherman, who had many other things to do, stopped still and listened when he had gone out at night to take up his nets and then heard the nightingale.

—from *The Nightingale* by Hans Christian Andersen

29. The author wants to tell this story _____.
(A) because he can't forget the nightingale
(B) before it is forgotten
(C) to teach us about China
(D) because he is a writer and storyteller
(E) in order to describe the garden

30. The Emperor's palace was made of _____.
(A) brick
(B) silver bells
(C) high trees
(D) large stones and boulders
(E) porcelain

31. Silver bells were tied to flowers in the garden to _____.
(A) draw attention to their beauty
(B) frighten birds and mice away
(C) play soft melodies
(D) remind the gardener not to pick them
(E) sparkle in the sun

32. The Emperor's garden _____.
(A) was very strange
(B) was too large to care for
(C) led into a lovely forest
(D) housed a rare nightingale
(E) was a source of pleasure for all in the kingdom

Passage 7

Several legends surround the first American flag. Perhaps the best known and most widely accepted is that of Bersy Ross. Legend tells of George Washington, George Ross and Robert Morris being appointed in June 1776 to design a national flag. Supposedly, Washington made a crude design that was dispatched to Betsy Ross, wife
(5) of George Ross's nephew and an expert seamstress, in Philadelphia. Taking the rough sketch and changing only the number of points on the stars from six to five. Mrs. Ross cut and sewed the first national flag for the United States.

History tells us Betsy Ross was a twice-widowed seamstress in Philadelphia who may have made some navy flags. While it is documented that Washington was in Philadelphia for two weeks in 1776, the trip was made on urgent military business. It is doubtful he would have and time to design a flag and, in fact, there is no evidence of his being ordered to do so. Also, the Betsy Ross story was first told in 1870, 94 years after it supposedly took place. The story has all the proper ingredients—hurried meetings, hasty sketches, a patriotic widow sewing the new nation's flag for the country her late husband died defending. However, history has proven it to be just a story.

The origins of the Stars and Stripes are shrouded in mystery, legends and half-truths. Facts strongly suggest that the flag had no single designer but was a conglomeration of ideas and designs.

33. Which of the following is the best title for the selection?
(A) Debunking the Betsy Ross Story.
(B) The Stars and Stripes.
(C) Navy Flags to Nation's Flag.
(D) Flag Maker of the United States.
(E) Legends Surrounding the Fist Official Flag.

34. Which of the following best describes the author's opinion of Betsy Ross?
(A) Talented (B) Victimized (C) A hero
(D) Unskilled (E) A fraud

35. The author suggests that the flag was probably designed by _____.
(A) Betsy Ross's deceased husband
(B) George Washington, George Ross and Robert Morris
(C) Betsy Ross
(D) a group of seamstresses in Philadelphia
(E) several unknown people

36. The author suggests which of the following as reasons why it is unlikely that Betsy Ross made the first flag?
(A) Betsy Ross did not have enough time to make the flag.
(B) Betsy Ross lacked the necessary skill.
(C) George Washington was insulted by the changes to his design that she suggested.
(D) There is no direct evidence that Betsy Ross ever sewed the Stars and Stripes.
(E) George Washington never asked Betsy Ross to make the flag.

37. When the author says, "The story has all the proper ingredients", she means _____.
(A) the story is believable
(B) the story has been told in a way that makes people want to believe it
(C) all of the facts support her theory
(D) a recipe for a myth is in the story
(E) the story has a beginning, a middle and an end

Passage 8

The summer holidays! Those magic words! The mere mention of them used to send shivers of joy rippling over my skin. All my summer holidays, from when I was four years old to when I was seventeen (1920 to 1932), were idyllic. This, I am certain, was because we always went to the same idyllic place, and that place was Norway.

Except for my ancient half-sister and my not-quite-so-ancient half-brother, the rest of us were all pure Norwegian by blood. We all spoke Norwegian and all our relations lived over there. So in a way, going to Norway every summer was like going home.

Even the journey was an event. Do not forget that there were no commercial aeroplanes in those times, so it took us four whole days to complete the trip out and another four days to get home again.

38. The author's goal in writing was to express _____.
(A) dismay at the drudgery of the journey
(B) his realization that the trip was so long
(C) his dislike of his half-sister and half-brother
(D) his affection for Norway
(E) how different life was back then

39. The author uses the word "idyllic" in the first paragraph to mean _____.
(A) religious (B) boring (C) cold
(D) scary (E) pleasant

40. The author uses the analogy that "going to Norway every summer was like going home" to illustrate _____.
(A) how happy and comfortable he was there
(B) how much he dreaded the journey
(C) how long they stayed in Norway
(D) why his half-sister and half-brother were going along
(E) how frequently they went to Norway

GO ON TO THE NEXT SECTION

SECTION 5
MATHEMATICS ACHIEVEMENT

Time: 40 minutes
25 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 **Answer**

$(5 + 3) - 2 =$ ● Ⓑ Ⓒ Ⓓ

(A) 6
(B) 8
(C) 10
(D) 13

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

1. If all the sides in the polygon in Figure 1 are of equal length and its perimeter is 42, what is the length of one side?
   (A) 2
   (B) 3
   (C) 4
   (D) 6
   (E) 7

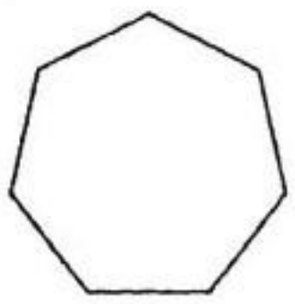


Figure 1

2. Each person contributed the same amount toward a gift. If $ 60 was collected, which CANNOT be the amount each gave?
   (A) $ 0.50
   (B) $ 5.00
   (C) $ 9.00
   (D) $ 15.00
   (E) $ 30.00
3. N is a whole number between 1 and 5. N is also between 3 and 6. Which is N?
   (A) 2
   (B) 3
   (C) 3.5
   (D) 4
   (E) 5
4. Of the following, 0.49×82 is closest to _____.
   (A) $\frac{1}{2}$ of 80
   (B) $\frac{1}{2}$ of 90
   (C) $\frac{1}{4}$ of 80
   (D) $\frac{1}{4}$ of 90
   (E) 4 times 80

Questions 5-6 refer to the graph in Figure 2.

5. How many more history books than science books are there?
   (A) 2
   (B) 602
   (C) 1,200
   (D) 1,800
   (E) 6,000

6. The number of fiction books is how many times the number of biographies?
   (A) 2
   (B) 3
   (C) 6
   (D) 200
   (E) 1,800

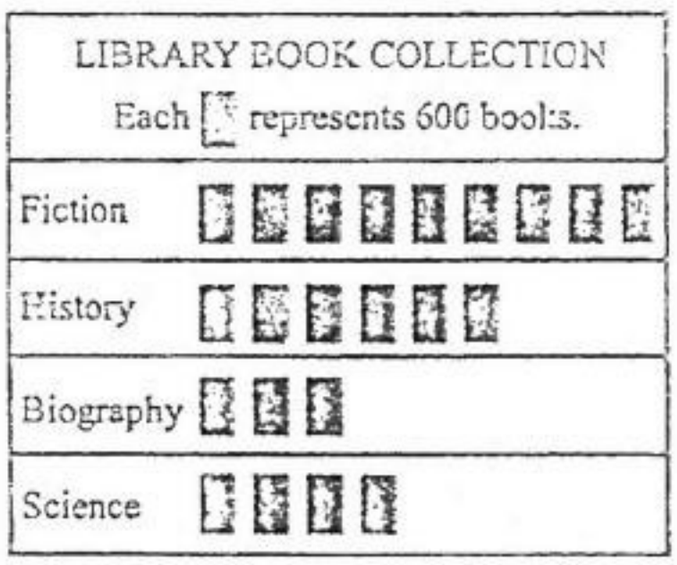


Figure 2

7. All of the following are greater than $\frac{1}{2}$ EXCEPT _____.
   (A) $\frac{101}{200}$
   (B) $\frac{17}{33}$
   (C) $\frac{7}{12}$
   (D) $\frac{600}{1000}$
   (E) $\frac{23}{50}$

8. For what price is 30 percent off the same as $ 30 off?
   (A) $ 1
   (B) $ 10
   (C) $ 100
   (D) $ 1.000
   (E) It is never the same.

9. In Figure 3, the sides of squares $PQTV$ and $QRST$ are equal. Starting at P, travelling along the sides of the squares, which path is longest?
   (A) P to Q to R to S
   (B) P to Q to S to R
   (C) P to Q to T to S
   (D) P to V to Q to S
   (E) P to V to T to S

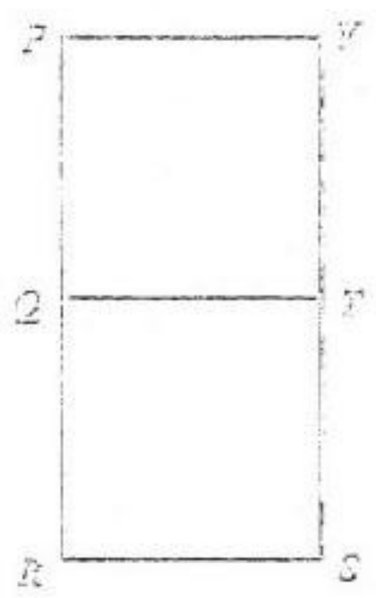
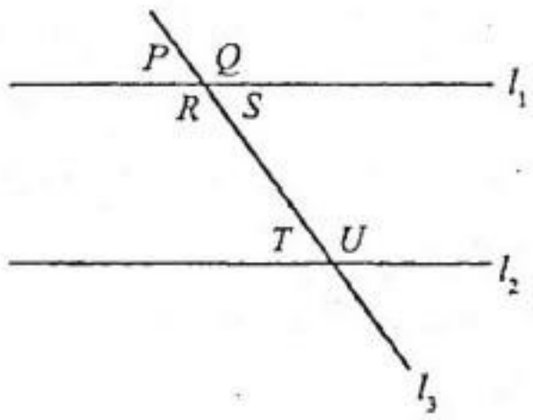


Figure 3

10. If $\frac{1}{4}$ of a number is greater than 7, the number must be _____.
   (A) less than 2
   (B) equal to 2
   (C) less than 28
   (D) equal to 28
   (E) greater than 28

11. What is the value of $\left(9x^3 - \frac{z^2}{2}\right)\left(\frac{y}{11}\right)$ when $x = -1, y = 1, z = 2$?
   (A) $\frac{25}{11}$
   (B) $\frac{1}{11}$
   (C) $\frac{-1}{11}$
   (D) $\frac{-7}{11}$
   (E) -1

12. In the figure below, if lines l_1 and l_2 are parallel, and l_3 transects l_1 and l_2 at an acute angle, which of the following statements is FALSE? (P, Q, R, S, T and U are angles.)

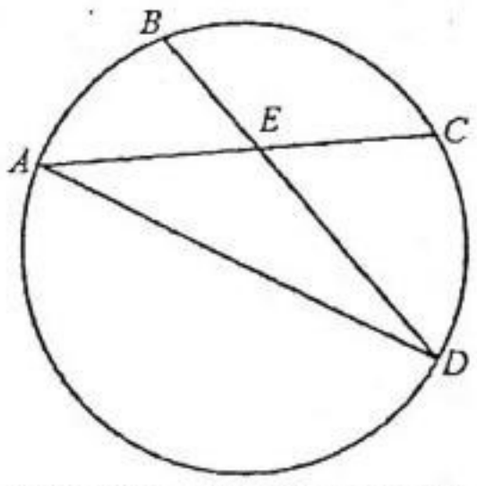


(A) $P = S$
(B) $P = Q$
(C) $T = S$
(D) $T = P$
(E) $R = Q$

13. A woman's coin purse contains 65 cents in 11 coins, all nickels and dimes. How many coins are dimes?
(A) 1
(B) 2
(C) 3
(D) 4
(E) 5

14. What percent of two gallons is a quart?
(A) 12.5%
(B) 25%
(C) 50%
(D) 67%
(E) 75%

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



Note: Figure not drown to scale

(A) 60°
(B) 45°
(C) 30°
(D) 40°
(E) 15°

16. A shopper obtains a 30% discount on the price of a chair and pays $350. How much was the original price of the chair?
(A) $126
(B) $450
(C) $577
(D) $500
(E) $1,400

17. In triangle ABC, $\angle C = 2\angle B$, $\angle A = 6\angle B$. What is the measure of $\angle C$?
(A) 5°
(B) 15°
(C) 20°
(D) 30°
(E) 40°

18. If $\begin{matrix} a & b \\ c & d \end{matrix}$ is defined as $ad - cd$, then $\begin{matrix} a & b \\ c & d \end{matrix} + \begin{matrix} a & b \\ c & d \end{matrix} + 2cb =$ _____.
(A) $ad - cd$
(B) $-2cb$
(C) 0
(D) $2ad$
(E) $-4cb$

19. If the base of a right triangle is $8\sqrt{2}$ and the hypotenuse is 18, what is the area of the triangle?
(A) 14
(B) $14\sqrt{2}$
(C) $56\sqrt{2}$
(D) 64
(E) $64\sqrt{2}$

20. If $a + b = 27$ and $3c - a = 0$, what does c equal?
(A) $3a$
(B) 27
(C) $27 - b$
(D) $9 - 3b$
(E) $9 - \frac{b}{3}$

21. It takes Craig 5 minutes to type n pages. At this rate, how many minutes will it take him to type 20 pages?

(A) $\frac{n}{100}$

(B) $\frac{4}{n}$

(C) $\frac{100}{n}$

(D) $4n$

(E) $100n$

22. The width of a rectangular swimming pool is one quarter of its length. If the length is 40 meters, what is the perimeter of the pool?

(A) 60 m

(B) 120 m

(C) 100 m

(D) 180 m

(E) 240 m

23. The price of a dress at a department store decreases by 20 percent every month it is not sold. After 3 months, the current price of the unsold dress is approximately what percent of the original price?

(A) 40%

(B) 50%

(C) 60%

(D) 70%

(E) 80%

24. If p is a positive integer and n is a negative integer, which of the following is greatest?

(A) $\frac{p}{n}$

(B) $\frac{n}{p}$

(C) $\frac{1}{p-n}$

(D) $\frac{1}{n-p}$

(E) It cannot be determined from the information given.

25. In a yoga school, $\frac{1}{9}$ of the men and $\frac{1}{3}$ of the women are vegetarians, and twice as many men as women are vegetarians. If there are 84 people in the yoga school, how many men are vegetarians?

(A) 4

(B) 8

(C) 12

(D) 27

(E) 72