

MIDDLE LEVEL SSAT PRACTICE TEST 12

Middle Level SSAT

Writing Sample

Time – 25 Minutes

1 Topic

Writing Sample

Schools would like to get to know you better through a story you tell or an essay you write. If you choose to write a story, use the sentence presented in A to begin. Make sure that your story has a beginning, middle, and end. If you choose to write a personal essay, base your essay on the topic presented in B. Please fill in the circle next to your choice.

A I noticed something strange across the street.

B Describe a choice that you made that you regret. What did you learn from making that choice?

1

Middle Level SSAT

Section 1

Time – 30 Minutes

25 Questions

Following each problem in this section, there are five suggested answers. Work each problem in your head or in the blank space provided at the right of the page. Then look at the five suggested answers and decide which one is best.

Note: Figures that accompany problems in this section are drawn as accurately as possible EXCEPT when it is stated in a specific problem that its figure is not drawn to scale.

Sample Problem:

$$\begin{array}{r} 5,413 \\ -4,827 \\ \hline \end{array}$$

- (A) 586
- (B) 596
- (C) 696
- (D) 1,586
- (E) 1,686

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

1. Which fraction equals $\frac{2}{3}$?

(A) $\frac{3}{2}$

(B) $\frac{3}{6}$

(C) $\frac{9}{12}$

(D) $\frac{8}{12}$

(E) $\frac{5}{6}$

2. Which of the following is an even positive integer that lies between 22 and 27 ?

(A) 25

(B) 24

(C) 22

(D) 21

(E) 20

3. In the number 281, the sum of the digits is how much less than the product of the digits?

(A) 16

(B) 11

(C) 10

(D) 5

(E) 4

4. $(109 - 102) \times 3 - 4^2 =$

- (A) 5
 - (B) 0
 - (C) -5
 - (D) -7
 - (E) -336
-

5. A concert is held at a stadium that has 25,000 seats. If exactly $\frac{3}{4}$ of the seats were filled, to the nearest thousand, how many people attended the concert?

- (A) 10,000
 - (B) 14,000
 - (C) 15,000
 - (D) 19,000
 - (E) 21,000
-

6. The perimeter of a square with an area of 81 is

- (A) 81
 - (B) 54
 - (C) 36
 - (D) 18
 - (E) 9
-

7. If the sum of three consecutive positive integers is 9, what is the middle integer?

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

8. A number greater than 2 that is a factor of both 20 and 16 is also a factor of which number?

- (A) 10
 - (B) 14
 - (C) 18
 - (D) 24
 - (E) 30
-

9. $(2^3)^2 =$

- (A) 2
 - (B) 2^5
 - (C) 2^6
 - (D) 4^5
 - (E) 4^6
-

10. If $\frac{1}{2}$ is greater than $\frac{M}{16}$, then M could be

- (A) 7
 - (B) 8
 - (C) 9
 - (D) 10
 - (E) 32
-

11. The sum of the lengths of two sides of an equilateral triangle is 4.
What is the perimeter of the triangle?

- (A) 2
 - (B) 4
 - (C) 6
 - (D) 8
 - (E) 12
-

Questions 12–14 refer to the following chart.

Stacey's Weekly Mileage

Day	Miles Driven
MONDAY	35
TUESDAY	70
WEDNESDAY	50
THURSDAY	105
FRIDAY	35
SATURDAY	35
SUNDAY	20
Total	350

Figure 1

12. What percentage of her total weekly mileage did Stacey drive on Monday?

- (A) 10%
- (B) 20%
- (C) 35%
- (D) 60%

(E) 90%

13. The number of miles Stacey drove on Thursday is equal to the sum of the miles she drove on which days?

- (A) Monday and Wednesday
- (B) Saturday and Sunday
- (C) Tuesday, Wednesday, and Friday
- (D) Friday, Saturday, and Sunday
- (E) Monday, Friday, and Saturday

14. The number of miles Stacey drove on Sunday is equal to what percent of the number of miles she drove on Wednesday?

- (A) 10%
- (B) 20%
- (C) 40%
- (D) 50%
- (E) 80%

15. If $x = 5$, which of the following is equal to $\frac{1}{x}$?

- (A) 10%
 - (B) 20%
 - (C) 40%
 - (D) 2%
 - (E) 3%
-

16. What is 20% of 25% of 80 ?

- (A) 4
- (B) 5

- (C) 10
 - (D) 16
 - (E) 20
-

17. During one week, Roy worked 3 hours on Monday, 5 hours on Tuesday, and 8 hours each day on Saturday and Sunday. The following week Roy worked a total of 40 hours. What was the average number of hours Roy worked each week?

- (A) 32
 - (B) 28
 - (C) 24
 - (D) 12
 - (E) 6
-

18. A box with dimensions $4 \times 8 \times 10$ is equal in volume to a box with dimensions $16 \times g \times 2$. What does g equal?

- (A) 2
 - (B) 4
 - (C) 8
 - (D) 10
 - (E) 16
-

19. Otto wants to buy two sweaters that regularly sell for b dollars each. The store is having a sale in which the second sweater costs half price. If he buys the sweaters at this store, what is the overall percent he will save on the price of the two sweaters?

- (A) 10%
- (B) 25%

(C) $33\frac{1}{3}\%$

(D) 50%

(E) 75%

20. In a certain month Ben eats 8 dinners at Italian restaurants, 4 dinners at Chinese restaurants, and 6 dinners at steakhouses. If these dinners account for all Ben's restaurant visits during the month, what percent of Ben's restaurant meals were at steakhouses?

(A) 75%

(B) $66\frac{1}{2}\%$

(C) 50%

(D) $33\frac{1}{3}\%$

(E) 10%

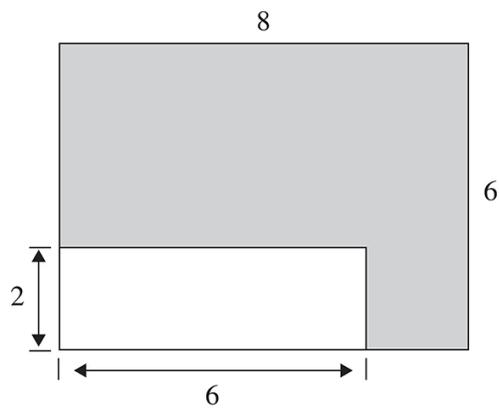


Figure 2

21. What is the area of the shaded region?

- (A) 48
 - (B) 36
 - (C) 24
 - (D) 12
 - (E) It cannot be determined from the information given.
-

22. In the equation $(2 + \blacksquare + 3)(2) = 16$, what does the \blacksquare stand for?

- (A) 3
 - (B) 8
 - (C) 9
 - (D) 10
 - (E) 12
-

23. At Skytop Farm, the ratio of cows to pigs is 16 to 1. Which of the following could be the total number of cows and pigs at the farm?

- (A) 15
 - (B) 16
 - (C) 32
 - (D) 68
 - (E) 74
-

24. Sibyl has seen four more films than Linda has seen. Linda has seen twice as many films as Joel has seen. If Sibyl has seen s films, then in terms of s , which of the following is an expression for the number of films Joel has seen?

- (A) $\frac{s}{2} - 2$

$$(B) \frac{s}{2} - 4$$

$$(C) s - 2$$

$$(D) s - 4$$

$$(E) \frac{8}{s-2}$$

Let $@x$ be defined by $@x = 2x$, where x is an integer.

25. $@3 - @2 =$

(A) $@4$

(B) $@2$

(C) $@1$

(D) $@(-2)$

(E) $@(-3)$

STOP

IF YOU FINISH BEFORE TIME IS CALLED,
YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.
DO NOT TURN TO ANY OTHER SECTION IN THE TEST.

2

Middle Level SSAT

Section 2

Time – 40 Minutes

40 Questions

Read each passage carefully and then answer the questions about it. For each question, decide on the basis of the passage which one of the choices best answers the questions.

The native inhabitants of the Americas arrived from Asia more than 20,000 years ago. They belonged to numerous tribes and many were skilled hunters, farmers, and fishers. Some of the most famous of the tribes of Native Americans are the Sioux, the Cheyenne, the Iroquois, and the Apache.

5 These tribes settled and developed organized societies. The settlers to North America from Europe fought the Native Americans for land. Geronimo was the last great Native American chief to organize rebellions against the settlers. He led raids across the southwest and into Mexico. Although he eventually was captured, he later became a celebrity.

After a long battle, the United States government moved the Native Americans onto reservations—special sections of land set aside for them—where many still reside today.

1. The main purpose of this passage is to

- (A) report on the current status of Native Americans
- (B) offer a solution to the problems of Native Americans
- (C) give a brief history of Native Americans
- (D) discuss ways Native Americans are able to work on reservations
- (E) give a history of different Native American tribes

2. According to the passage, the fate of Geronimo was

- (A) to live out his life in disgrace
- (B) to become a great war hero with no defeats

- (C) to become famous throughout the country
- (D) to die penniless and alone
- (E) to commit suicide

3. The author's tone in regard to the fate of Native Americans is

- (A) passionate
- (B) objective
- (C) disappointed
- (D) ambivalent
- (E) envious

4. Which of the following is the author most likely to discuss next?

- (A) Possible causes of Native American resentment
- (B) The life of the Native American in modern society
- (C) The battle that defeated Geronimo
- (D) The differences among tribes
- (E) A detailed history of the Sioux

5. The passage names all the following as skills possessed by Native Americans EXCEPT

- (A) farming
- (B) hunting
- (C) fishing
- (D) gathering
- (E) fighting

Twenty percent of all the land on Earth consists of deserts. When most people think of deserts, they think of searing heat, big sand dunes, and camels. But not all deserts are huge sand piles—many are strewn with rocks and some, like those at high altitudes, may actually be quite cold.

5 Desert life is interesting and varied as well. Though the desert is a punishing place—it is difficult to find food and water in the desert—many animals live there. Because there is so little water, desert animals have adapted. Camels can survive for days without drinking. Other animals get their water from the insects and plants they eat.

10 The extreme temperatures of the desert can make life difficult as well. Many of the mammals there have thick fur to keep out the heat and the cold. Some desert animals are nocturnal, sleeping by day and hunting by night when the air is cooler. It may seem that all deserts are the same, but they are as different as the animals that inhabit them.

6. The passage is primarily about

- (A) deserts and desert wildlife
- (B) nocturnal animals
- (C) plant life of the desert
- (D) sources of water in the desert
- (E) average desert temperatures

7. Which of the following can be inferred as an example of an adaptation to desert life?

- (A) The large claws of the lizard
- (B) The heavy outer shell of the beetle
- (C) The long ears of the hedgehog that give off heat to cool the animal
- (D) The large hood of the cobra that scares off predators
- (E) The quick speed of the mongoose so that it may catch its prey

8. The style of the passage is most like that found in a(n)

- (A) scientific thesis

- (B) general book on desert life
- (C) advanced text on animal adaptations
- (D) diary of a naturalist
- (E) biography of a desert researcher

9. According to the passage, camels are well adapted to desert life because

- (A) they have long legs
- (B) they have thick fur that keeps them cool
- (C) they have large hooded eyes
- (D) they are capable of hunting at night
- (E) they can store water for many days

10. According to the passage, some deserts

- (A) are filled with lush vegetation
- (B) are home to large bodies of water
- (C) actually get a good deal of rainfall
- (D) can be in a cold climate
- (E) are home to large, thriving cities

11. The word “punishing” in line 5 most closely means

- (A) beating
- (B) harsh
- (C) unhappy
- (D) deadly
- (E) fantastic

The original Olympic Games started in Greece more than 2,000 years ago. These games were a religious festival, and, at their height, lasted for five days. Only men could compete, and the sports included running, wrestling, and chariot racing.

Today's Olympic Games are quite a bit different. First, there are two varieties:
5 Winter Olympics and Summer Olympics. They each boast many men and women competing in a multitude of sports, from skiing to gymnastics. They are each held every four years, but not during the same year. They alternate so that there are Olympic Games every two years. The Olympics are no longer held only in one country. They are hosted by different cities around the world. The opening ceremony is a spectacular
10 display, usually incorporating the traditional dances and culture of the host city.

The highlight of the opening ceremony is the lighting of the Olympic flame. Teams of runners carry the torch from Olympia, the site of the ancient Greek games. Although the games have changed greatly throughout the centuries, the spirit of competition is still alive. The flame represents that spirit.

12. The passage is primarily concerned with

- (A) justifying the existence of the Olympic Games
- (B) explaining all about the games in Ancient Greece
- (C) discussing the differences between Winter Olympics and Summer Olympics
- (D) comparing the modern Olympic Games to those in Ancient Greece
- (E) explaining the process for choosing a host country

13. The author mentions “traditional dances and culture of the host city” in order to

- (A) give an example of how the opening ceremony is so spectacular
- (B) explain the differences among the different host cities
- (C) show that Ancient Greek games were quite boring by contrast
- (D) make an analogy to the life of the Ancient Greeks
- (E) illustrate the complexity of the modern games

14. The author's tone in the passage can best be described as

- (A) disinterested
- (B) upbeat
- (C) gloating
- (D) depressing
- (E) fatalistic

15. The lighting of the torch is meant to symbolize

- (A) the destruction caused in Ancient Greece
- (B) the spirit of Ancient Greek competition
- (C) the rousing nature of the games
- (D) the heat generated in competition
- (E) an eternal flame so that the games will continue forever

16. Which of the following can be inferred from the passage?

- (A) Women in ancient Greece did not want to compete in the Olympics.
- (B) The Olympics were held every year.
- (C) The Olympics used to be held in just one country.
- (D) Ice skating is a winter event.
- (E) Opening ceremonies today are more spectacular than ones in ancient Greece.

Like snakes, lizards, and crocodiles, turtles are reptiles. The earliest fossils recognized as turtles are about 200 million years old and date from the time when dinosaurs roamed Earth. Unbelievably, turtles have changed little in appearance since that time.

5 There are many different types of turtles in many different climates around the world. In contrast to other reptiles, whose populations are confined largely to the tropics, turtles are most abundant in southeastern North America and southeastern Asia. They live in lakes, ponds, salt marshes, rivers, forests, and even deserts. The sizes of turtles vary. Bog or mud turtles grow no larger than about 4 inches (10 centimeters) long. At the other end of the spectrum is the sea-roving leatherback turtle, which may be more than 6.5 feet (2 meters) in length and weigh
10 more than 1,100 pounds (500 kilograms).

Turtles live longer than most other animals, but reports of turtles living more than a century are questionable. Several kinds, however, have lived more than 50 years in captivity. Even in natural environments, box turtles and slider turtles can reach ages of 20 to 30 years. The ages of some turtles can be estimated by counting the growth rings that form each year on the external
15 bony plates of the shell.

17. The author mentions dinosaurs in the first paragraph to

- (A) illustrate the age of the turtle fossils
- (B) uncover the mystery of turtle origins
- (C) show that turtles may become extinct
- (D) give an example of the type of predator that turtles once faced
- (E) bring the life of the turtle into focus

18. Turtles are different from other reptiles because they

- (A) date back to dinosaur times
- (B) have not adapted to their environment
- (C) live in different climates
- (D) are desert dwellers
- (E) are good pets

19. When the author discusses the theory that turtles may live to be more than 100, the tone can best be described as

- (A) respectful

- (B) ridiculing
- (C) horrified
- (D) interested
- (E) skeptical

20. One of the ways to verify the age of a turtle is to

- (A) measure the turtle
- (B) count the rings on its shell
- (C) examine the physical deterioration of its shell
- (D) weigh the turtle
- (E) subtract its weight from its length

21. The author would most probably agree that

- (A) turtles are more interesting than other reptiles
- (B) there is a lot to be learned about turtles
- (C) turtles live longer than any other animal
- (D) turtles can be very dangerous
- (E) there are no bad turtles

5 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.

10 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.

22. The author's goal in writing was to express

- (A) his affection for Norway
- (B) his dislike of his half-sister and half-brother
- (C) dismay at the drudgery of the journey
- (D) how different life was back then
- (E) his realization that the trip was so long

23. The author uses the word "idyllic" in the first paragraph to mean

- (A) scary
- (B) pleasant
- (C) religious
- (D) cold
- (E) boring

24. The author uses the analogy that "going to Norway every summer was like going home" to illustrate

- (A) how much he dreaded the journey
- (B) how frequently they went to Norway
- (C) why his half-sister and half-brother were going along
- (D) how long they stayed in Norway
- (E) how happy and comfortable he was there

25. The author mentions the length of the trip in order to

- (A) make the reader sympathetic to his plight
- (B) make the reader understand why the trip was an adventure
- (C) help the reader visualize the boredom that he faced
- (D) give the reader some sympathy for the half-sister and half-brother
- (E) help the reader visualize Norway

You may love to walk along the seashore and collect beautiful shells, but do you ever think about whose home that shell was before you found it? That's right, seashells are the home of a whole group of creatures known as shellfish. Some of the most common types of shellfish are the mussel, the clam, and the scallop.

5 It may surprise you to learn that the shellfish themselves make the shells. They manage to draw calcium carbonate, a mineral, from the water. They use that mineral to build the shell up layer by layer. The shell can grow larger and larger as the shellfish grows in size.

10 There are two main types of shells. There are those that are a single unit, like a conch's shell, and those that are in two pieces, like a clam's shell. The two-piece shell is called a bivalve, and the two pieces are hinged together, like a door, so that the shell can open and close for feeding.

26. The "home" mentioned in line 2 most likely refers to

- (A) the sea
- (B) the planet
- (C) the places shellfish can be found
- (D) the shell
- (E) a shelter for fish

27. Which of the following questions is answered by the passage?

- (A) How do shellfish reproduce?
- (B) How much does the average shellfish weigh?
- (C) What is the average life span of a shellfish?
- (D) What do shellfish feed on?
- (E) How do shellfish make their shells?

28. This passage is primarily concerned with

- (A) how shellfish differ from other fish
- (B) the life span of shellfish

- (C) shellfish and their habitats
- (D) a general discussion of shells
- (E) the origin of shells

29. The author uses the comparison of the bivalves' hinge to a door in order to

- (A) illustrate how the shell opens and closes
- (B) explain why the shell is so fragile
- (C) give a reason for the shells that are found open
- (D) explain the mechanism for how the shells are made
- (E) illustrate that shellfish are not so different from other fish

30. What is the best title of the selection?

- (A) "A Conch by Any Other Name Would Shell be as Sweet"
- (B) "Going to the Beach"
- (C) "I Can Grow My Own Home!"
- (D) "The Prettiest Aquatic Life"
- (E) "How to Find Shells"

31. According to the passage, the primary difference between the conch's shell and the clam's shell is that

- (A) the conch shell is more valuable than the clam's shell
- (B) the conch shell protects better than the clam's shell
- (C) the conch shell is more beautiful than the clam's shell
- (D) the clam's shell is more difficult for the clam to manufacture than the conch shell is for the conch to manufacture
- (E) the conch shell has fewer pieces than the clam shell

By day the bat is cousin to the mouse;
He likes the attic of an aging house.
His fingers make a hat about his head.
His pulse-beat is so slow we think him dead.
5 He loops in crazy figures half the night
Among the trees that face the corner light.
But when he brushes up against a screen,
We are afraid of what our eyes have seen:
For something is amiss or out of place
10 When mice with wings can wear a human face.
—Theodore Roethke

32. The “hat” referred to in line 3 is meant to refer to

- (A) the attic of the house
- (B) the bat’s head
- (C) the bat’s wings
- (D) the death of the bat
- (E) the mouse

33. The passage uses which of the following to describe the bat?

- I. the image of a winged mouse
- II. the image of a vampire
- III. the way he flies

- (A) I only

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

34. The author mentions the “crazy figures” in line 5 to refer to

- (A) the comic notion of a mouse with wings
- (B) the pattern of the bat’s flight
- (C) the shape of the house
- (D) the reason the bat appears dead
- (E) the trees in the yard

35. The author would most probably agree with which of the following statements?

- (A) Bats are useful animals.
- (B) Bats are related to mice.
- (C) Bats are feared by many.
- (D) Most people have bats in their attic.
- (E) Bats are an uninteresting phenomenon.

Did you ever watch a sport and admire the players’ uniforms? Perhaps you play a sport and know the thrill of putting on your team’s uniform. Uniforms are important for many different reasons, whether you are playing a sport or watching one.

5 If you are playing a sport, you have many reasons to appreciate your uniform. You may notice how different uniforms are for different sports. That’s because they are designed to make participation both safe and easy. If you participate in track and field, your uniform is designed to help you run faster and move more easily. If you participate in a sport like boxing or football, your uniform will protect you as well. You may wear special shoes, like sneakers or cleats, to help you run faster or keep you from slipping.

10 If you watch sports, you can appreciate uniforms as well. Imagine how difficult it would be to tell the players on a field apart without their uniforms. And of course, as sports fans all over the world do, you can show support for the team you favor by wearing the colors of the team’s uniform.

36. The primary purpose of the passage is to

- (A) discuss the importance of team spirit
- (B) explain why uniforms are important for safety
- (C) give a general history of uniforms
- (D) help shed light on the controversy surrounding uniforms
- (E) give some reasons why uniforms are useful

37. The “support” mentioned in line 12 most probably means

- (A) nourishment
- (B) salary
- (C) endorsement
- (D) brace
- (E) relief

38. Which of the following best describes the author’s attitude toward uniforms?

- (A) Most of them are basically the same.
- (B) They have many different purposes.
- (C) They’re most useful as protection against injury.
- (D) They are fun to wear.
- (E) They don’t serve any real purpose.

39. According to the passage, people need special uniforms for track and field sports to

- (A) help spectators cheer on the team
- (B) distinguish them from other athletes
- (C) protect against injury
- (D) give them freedom of movement
- (E) prevent them from losing

40. According to the passage, the primary reason that spectators like uniforms is that

- (A) they help them to distinguish teams
- (B) they have such vibrant colors
- (C) they make great souvenirs
- (D) they are collectible
- (E) they are not too expensive

STOP

IF YOU FINISH BEFORE TIME IS CALLED,
YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.
DO NOT TURN TO ANY OTHER SECTION IN THE TEST.

3

Middle Level SSAT

Section 3

Time – 30 Minutes

60 Questions

This section consists of two different types of questions. There are directions and a sample question for each type.

Each of the following questions consists of one word followed by five words or phrases. You are to select the one word or phrase whose meaning is closest to the word in capital letters.

Sample Question:

CHILLY:

- (A) lazy
- (B) nice
- (C) dry
- (D) cold
- (E) sunny

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

1. OBEDIENT:

- (A) amenable

- (B) excessive
- (C) ironic
- (D) inhumane
- (E) improper

2. CONTAMINATE:

- (A) deodorize
- (B) decongest
- (C) deter
- (D) taint
- (E) defoliate

3. WOEFUL:

- (A) wretched
- (B) bloated
- (C) dim
- (D) animated
- (E) reasonable

4. PRACTICAL:

- (A) difficult to learn
- (B) inferior in quality
- (C) providing great support
- (D) having great usefulness
- (E) feeling great regret

5. SCRUTINIZE:

- (A) examine carefully
- (B) announce publicly

- (C) infer correctly
- (D) decide promptly
- (E) warn swiftly

6. CONFIDE:

- (A) judge
- (B) entrust
- (C) secret
- (D) profess
- (E) confuse

7. INITIATE:

- (A) bring to an end
- (B) sign
- (C) commence
- (D) hinder
- (E) guide

8. FORTUNATE:

- (A) lucky
- (B) wealthy
- (C) intelligent
- (D) poor
- (E) downtrodden

9. CRUMBLE:

- (A) eat
- (B) stumble
- (C) dry out

- (D) small
- (E) deteriorate

10. DESPERATE:

- (A) hungry
- (B) frantic
- (C) delicate
- (D) adaptable
- (E) contaminated

11. FRET:

- (A) listen
- (B) provide
- (C) worry
- (D) require
- (E) stash

12. DISGUISE:

- (A) mystery
- (B) convict
- (C) present
- (D) false front
- (E) pressure

13. ASSIST:

- (A) support
- (B) bring
- (C) distrust
- (D) yearn

(E) destroy

14. REPRIMAND:

- (A) praise
- (B) insure
- (C) liberate
- (D) chide
- (E) forgive

15. EVADE:

- (A) take from
- (B) blind
- (C) help
- (D) sidestep
- (E) successful

16. FATIGUE:

- (A) grow weary
- (B) become fluid
- (C) increase in height
- (D) recede from view
- (E) improve

17. ANTIDOTE:

- (A) foundation
- (B) vacation
- (C) poison
- (D) learning experience
- (E) antitoxin

18. PROPOSE:

- (A) speak up
- (B) marriage
- (C) fall away
- (D) suggest
- (E) lease

19. INCREDIBLE:

- (A) mundane
- (B) uncivilized
- (C) sophisticated
- (D) believable
- (E) extraordinary

20. VIGILANT:

- (A) observant
- (B) sleepy
- (C) overly anxious
- (D) brutal
- (E) moving

21. TATTERED:

- (A) unkempt
- (B) neat
- (C) exuberant
- (D) unruly
- (E) pressed

22. PRECEDE:

- (A) stand alongside
- (B) move toward
- (C) come before
- (D) hurl
- (E) beg

23. LAMENT:

- (A) relish
- (B) drench
- (C) moan
- (D) invent
- (E) incline

24. ENGAGE:

- (A) date
- (B) employ
- (C) train
- (D) dismiss
- (E) fear

25. COMPETENT:

- (A) disastrous
- (B) fast
- (C) cautious
- (D) able
- (E) inanimate

26. SINCERE:

- (A) new

- (B) passionate
- (C) expensive
- (D) genuine
- (E) untold

27. RICKETY:

- (A) strong
- (B) wooden
- (C) antique
- (D) beautiful
- (E) feeble

28. CONSPICUOUS:

- (A) plain as day
- (B) identity
- (C) camouflaged
- (D) shiny
- (E) cramped

29. VERSATILE:

- (A) peaceful
- (B) disruptive
- (C) adaptable
- (D) truthful
- (E) charming

30. CORROBORATION:

- (A) attraction
- (B) confirmation

- (C) legal activity
- (D) unfulfilled expectation
- (E) enthusiastic response

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

Sample Question:

Kitten is to cat as

- (A) fawn is to colt
- (B) puppy is to dog
- (C) cow is to bull
- (D) wolf is to bear
- (E) hen is to rooster

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

Choice (B) is the best answer because a kitten is a young cat, just as a puppy is a young dog. Of all the answer choices, (B) states a relationship that is most like the relationship between kitten and cat.

31. Fish is to water as

- (A) bird is to egg
- (B) roe is to pouch
- (C) lion is to land
- (D) flower is to pollen
- (E) bee is to honey

32. Sick is to healthy as

- (A) symptom is to disease
- (B) jailed is to free
- (C) tired is to overworked
- (D) scared is to trapped
- (E) injured is to hurt

33. Dancer is to feet as

- (A) surgeon is to heart
- (B) juggler is to hands
- (C) drummer is to drums
- (D) conductor is to voice
- (E) musician is to eyes

34. Bystander is to event as

- (A) juror is to verdict
- (B) culprit is to crime
- (C) tourist is to journey
- (D) spectator is to game
- (E) model is to portrait

35. Baker is to bread as

- (A) shop is to goods
- (B) butcher is to livestock
- (C) politician is to votes
- (D) sculptor is to statue
- (E) family is to confidence

36. Igneous is to rock as

- (A) stratum is to dig
- (B) fossil is to dinosaur
- (C) computer is to calculator
- (D) watercolor is to painting
- (E) calendar is to date

37. Delicious is to taste as

- (A) melodious is to sound
- (B) movie is to award
- (C) pastry is to dessert
- (D) chocolate is to sugar
- (E) darkness is to sight

38. Clog is to shoe as

- (A) sneaker is to run
- (B) lace is to tie
- (C) beret is to hat
- (D) shirt is to torso
- (E) sock is to foot

39. Cube is to square as

- (A) box is to cardboard
- (B) circle is to street
- (C) cylinder is to pen
- (D) line is to angle
- (E) sphere is to circle

40. Jam is to fruit as

- (A) bread is to toast

- (B) butter is to milk
- (C) crayon is to color
- (D) height is to stone
- (E) write is to pencil

41. Mile is to length as

- (A) sky is to height
- (B) coffee is to drink
- (C) pot is to stew
- (D) floor is to ground
- (E) quart is to volume

42. Biologist is to scientist as

- (A) surgeon is to doctor
- (B) chemist is to physicist
- (C) teacher is to principal
- (D) organ is to heart
- (E) historian is to era

43. Clay is to potter as

- (A) sea is to captain
- (B) magazine is to reader
- (C) marble is to sculptor
- (D) word is to teacher
- (E) bubble is to child

44. Clip is to movie as

- (A) buckle is to shoe
- (B) excerpt is to novel

- (C) jar is to liquid
- (D) room is to house
- (E) filling is to pie

45. Ruthless is to mercy as

- (A) kind is to thoughtfulness
- (B) illness is to virus
- (C) naive is to worldliness
- (D) contemptuous is to disrespect
- (E) forgiveness is to error

46. Glacier is to ice as

- (A) rain is to snow
- (B) bay is to sea
- (C) cloud is to storm
- (D) ocean is to water
- (E) pond is to fish

47. Glass is to window as

- (A) wood is to building
- (B) car is to motor
- (C) job is to skills
- (D) fabric is to clothing
- (E) loan is to interest

48. Buttress is to support as

- (A) press is to inflate
- (B) jam is to bread
- (C) ladder is to chimney

- (D) cool is to fan
- (E) scissor is to cut

49. Sneer is to disdain as

- (A) crinkle is to adoration
- (B) smile is to bravery
- (C) scowl is to intelligence
- (D) distrust is to confidence
- (E) cringe is to fear

50. Library is to book as

- (A) bank is to money
- (B) museum is to patron
- (C) opera is to audience
- (D) restaurant is to waiter
- (E) concert is to music

51. Famine is to food as

- (A) drought is to water
- (B) paper is to print
- (C) legend is to fantasy
- (D) debate is to issue
- (E) clause is to contract

52. Teacher is to student as

- (A) coach is to player
- (B) assistant is to executive
- (C) nurse is to doctor
- (D) patient is to dentist

(E) theory is to technician

53. Muffle is to noise as

(A) engine is to bicycle

(B) wind is to vane

(C) dam is to flood

(D) aroma is to fetid

(E) nibble is to eat

54. Rest is to exhaustion as

(A) pack is to vacation

(B) water is to thirst

(C) audit is to forms

(D) jury is to trial

(E) tide is to ocean

55. Playwright is to script as

(A) choreographer is to dance

(B) mathematician is to science

(C) philosopher is to insight

(D) enemy is to strategy

(E) athlete is to prowess

56. Gluttony is to food as

(A) sheer is to wall

(B) avarice is to money

(C) enterprise is to earning

(D) curiosity is to danger

(E) mystery is to solution

57. Facile is to effort as

- (A) deception is to trick
- (B) helpful is to friend
- (C) inconsiderate is to thoughtful
- (D) pious is to religion
- (E) incompetent is to task

58. Single-handed is to assistance as

- (A) ambidextrous is to duality
- (B) pseudonym is to authorship
- (C) anonymous is to recognition
- (D) candid is to sincere
- (E) inspired is to ideas

59. Stable is to horse as

- (A) paddock is to farm
- (B) feline is to box
- (C) kennel is to dog
- (D) dressage is to formal
- (E) bird is to nest

60. Dexterous is to pianist as

- (A) argumentative is to sibling
- (B) poised is to politician
- (C) graceful is to ballet dancer
- (D) devout is to heretic
- (E) boisterous is to actor

STOP

IF YOU FINISH BEFORE TIME IS CALLED,
YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.
DO NOT TURN TO ANY OTHER SECTION IN THE TEST.

4

Middle Level SSAT

Section 4

Time – 30 Minutes

25 Questions

Following each problem in this section, there are five suggested answers. Work each problem in your head or in the blank space provided at the right of the page. Then look at the five suggested answers and decide which one is best.

Note: Figures that accompany problems in this section are drawn as accurately as possible EXCEPT when it is stated in a specific problem that its figure is not drawn to scale.

Sample Problem:

$$\begin{array}{r} 5,413 \\ - 4,827 \\ \hline \end{array}$$

- (A) 586
- (B) 596
- (C) 696
- (D) 1,586
- (E) 1,686

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

1. Which of the following fractions is greatest?

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

(B) $\frac{5}{8}$

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

(D) $\frac{3}{7}$

(E) $\frac{5}{9}$

2. The sum of the factors of 12 is

(A) 28

(B) 21

(C) 20

(D) 16

(E) 15

3. $16 + 2 \times 3 + 2 =$

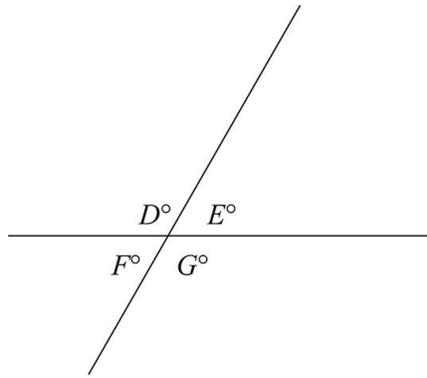
(A) 90

(B) 56

(C) 24

(D) 23

(E) 18



4. $D + E + F + G =$

- (A) 45
 - (B) 90
 - (C) 180
 - (D) 270
 - (E) 360
-

5. What are two different prime factors of 48 ?

- (A) 2 and 3
 - (B) 3 and 4
 - (C) 4 and 6
 - (D) 4 and 12
 - (E) 6 and 8
-

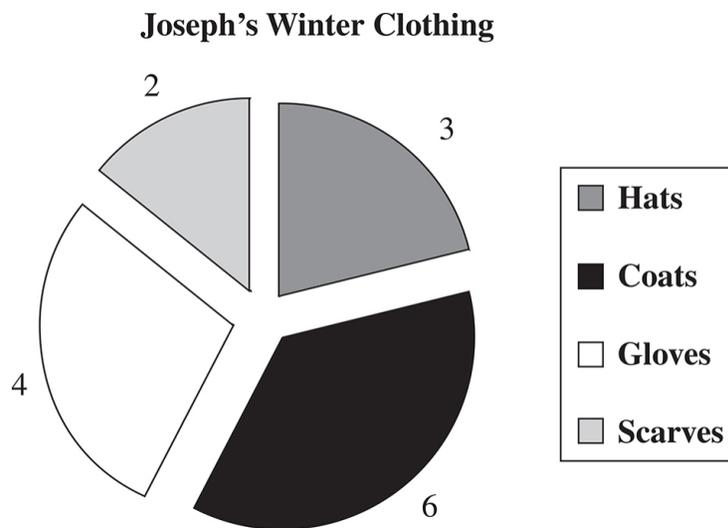
6. The difference between 12 and the product of 4 and 6 is

- (A) 12
 - (B) 10
 - (C) 2
 - (D) 1
 - (E) 0
-

7. The sum of the number of degrees in a straight line and the number of degrees in a triangle equals

- (A) 720
- (B) 540
- (C) 360
- (D) 180
- (E) 90

Questions 8–10 refer to the following graph.



8. The number of scarves Joseph owns plus the number of coats he owns equals

- (A) 5
- (B) 7
- (C) 8
- (D) 9
- (E) 10

9. Hats represent what percentage of the total number of garments accounted for in the graph?

- (A) 10%
- (B) 20%
- (C) 30%
- (D) 50%
- (E) 80%

10. Which types of garments represent one-third of the total number of garments accounted for in the graph?

- (A) Hats and coats
 - (B) Gloves and scarves
 - (C) Hats and scarves
 - (D) Gloves and coats
 - (E) Hats, gloves, and scarves
-

11. George bought five slices of pizza for \$10. At this price, how many slices of pizza could he buy with \$32 ?

- (A) 16
 - (B) 15
 - (C) 14
 - (D) 12
 - (E) 10
-

12. On a certain English test, the 10 students in Mrs. Bennett's class score an average of 85. On the same test, 15 students in Mrs. Grover's class score an average of 70. What is the combined average score for all the students in Mrs. Bennett's and Mrs. Grover's classes?

- (A) 80
- (B) 77.5
- (C) 76

- (D) 75
(E) 72
-

13. If Angelica bought p pencils, Eliza bought 5 times as many pencils as Angelica, and Peggy bought 2 pencils fewer than Angelica, then in terms of p , how many pencils did the three girls buy all together?

- (A) $5p - 2$
(B) 7
(C) $7p - 2$
(D) $8p$
(E) $8p - 2$
-

14. $\frac{4}{1,000} + \frac{3}{10} + 3 =$

- (A) 4,033
(B) 433
(C) 334
(D) 3.34
(E) 3.304
-

Questions 15 and 16 refer to the following definition.

For all real numbers f , $\boxed{f} = -2f$.

15. $\boxed{0} =$

- (A) 4
(B) 2
(C) 0
(D) -2

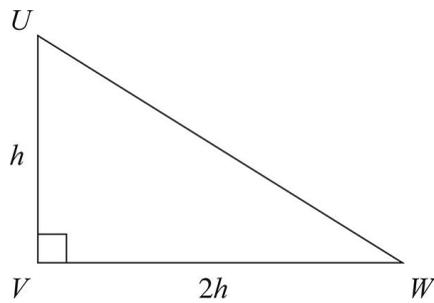
(E) -4

16. $\boxed{2} \times \boxed{3} =$

- (A) $\boxed{24}$
 - (B) $\boxed{2}$
 - (C) $\boxed{3}$
 - (D) $\boxed{-3}$
 - (E) $\boxed{-12}$
-

17. $2\frac{1}{4}\% =$

- (A) 0.0025
 - (B) 0.0225
 - (C) 0.225
 - (D) 2.025
 - (E) 2.25
-



18. The area of triangle UVW is

- (A) $2h^2$
- (B) h^2
- (C) h
- (D) 3

(E) 2

19. 9^4 is equal to which of the following?

- (A) $(3) \times (3) \times (3) \times (3)$
 - (B) $(9) \times (3) \times (9) \times (3)$
 - (C) $(9) \times (4)$
 - (D) $(3) \times (3) \times (3) \times (3) \times (3) \times (3) \times (3) \times (3)$
 - (E) $(9) \times (9) + (9) \times (9)$
-

20. It costs h cents to make 12 handkerchiefs. At the same rate, how many cents will it cost to make 30 handkerchiefs?

- (A) $30h$
 - (B) $\frac{5h}{2}$
 - (C) $\frac{2h}{5}$
 - (D) $\frac{2}{5h}$
 - (E) $5h$
-

21. A girl collects rocks. If her collection consists of 12 pieces of halite, 16 pieces of sandstone, 8 pieces of mica, and 8 pieces of galaxite, then the average number of pieces of each type of rock in her collection is

- (A) 8
- (B) 11
- (C) 12

- (D) 16
 - (E) 44
-

22. A recipe calls for 24 ounces of water for every two ounces of sugar. If 12 ounces of sugar are used, how many ounces of water should be added?

- (A) 6
 - (B) 12
 - (C) 24
 - (D) 36
 - (E) 144
-

23. The number of people now employed by a certain company is 240, which is 60% of the number employed five years ago. How many more employees did the company have five years ago than it has now?

- (A) 160
 - (B) 360
 - (C) 400
 - (D) 720
 - (E) 960
-

$$\begin{array}{r} 1B5 \\ \times 15 \\ \hline 2,025 \end{array}$$

24. In the multiplication problem above, B represents which digit?

- (A) 1
- (B) 2
- (C) 3

(D)

5

(E)

7

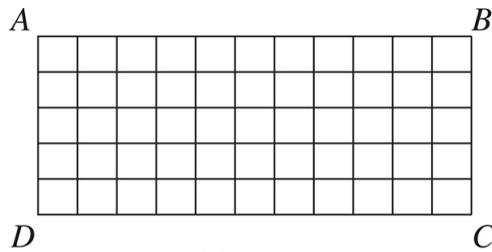


Figure 3

25. If the area of each of the smaller squares that make up rectangle $ABCD$ is 4, what is the perimeter of rectangle $ABCD$?

(A)

220

(B)

64 (C)

55 (D)

32 (E)

4

STOP

IF YOU FINISH BEFORE TIME IS CALLED,
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ONLY. DO NOT TURN TO ANY OTHER SECTION IN THE
TEST.

ANSWERS AND EXPLANATIONS

Section 1 Math

1. **D**

There are several ways to solve this problem (e.g., using the Bowtie method or finding a common denominator for the fractions). Another option would be to convert the fractions to decimal form. $\frac{2}{3} = 0.6\bar{6}$.

Choice (A) equals 1.5, (B) equals 0.5, (C) equals 0.75, (D) equals $0.6\bar{6}$, and (E) equals $0.8\bar{3}$. The only answer that is equal to $\frac{2}{3}$ or $0.6\bar{6}$ is (D). Note: if you found that $\frac{8}{12}$ reduces to $\frac{2}{3}$, you can pick that answer since there will not be two correct answers.

2. **B**

Read the question carefully. The question is asking for an *even* number, so eliminate (A) and (D) since both contain odd integers. The question also asks for the number to be *between* 22 and 27; therefore, it must be greater than 22 but less than 27. The only possible answer among the available choices is 24 (B). Thus, the correct answer is (B) since (C) and (E) are not greater than 22.

3. **D**

The sum of the digits in 281 is 11 since $2 + 8 + 1 = 11$. The product of the digits is 16 since $2 \times 8 \times 1 = 16 \times 1 = 16$. To find out how much less 11 is than 16, subtract: $16 - 11 = 5$. Therefore, the correct answer is (D).

4. **A**

Remember to use order of operations (PEMDAS). Start inside the parentheses first: $(109 - 102) \times 3 - 4^2 = (7) \times 3 - 4^2$. Then, simplify any exponents: $(7) \times 3 - 4^2 = 7 \times 3 - 16$. Next, multiply to get $21 - 16$, which equals 5. Therefore, the correct answer is (A).

5. **D**

If $\frac{3}{4}$ of the seats in the stadium are filled, then to find the number of people who attended the concert, multiply $\frac{3}{4}$ (or 0.75) by the stadium capacity (25,000): $\frac{3}{4}(25,000) = \frac{75,000}{4} = 18,750$. Rounded to the nearest thousand, the number of attendees is 19,000, or (D), which is the correct answer. Note that you can use estimation to solve this problem. $\frac{3}{4}$ of 24 is 18, so the number of attendees should start with or be a little larger than 18. Choice (D) is the closest option.

6. **C**

If the area of the square is 81, then use the area formula to find the length of one side of the square: $A = s^2$. If $81 = s^2$, then $\sqrt{81} = s$. Thus, $s = 9$. Since all four sides of a square are equal, each side equals 9. To find the perimeter of a shape, add up of all the sides: $9 + 9 + 9 + 9 = 36$. The correct answer is (C).

7. **C**

Use the answers (PITA) to find the middle integer. Start with (C). If the middle integer were 3, then the smallest integer would be 2 and the largest integer would be 4 since the 3 numbers are consecutive. Find the sum of the 3 numbers to see if the result is 9: $2 + 3 + 4 = 9$.

These numbers work, so the middle integer is 3, and the correct answer is (C).

8. **D**

The first number greater than 2 that is a factor of both 20 and 16 is 4 since $\frac{20}{4} = 5$ and $\frac{16}{4} = 4$. Check the answer choices to see which one is also divisible by 4, because this would mean that 4 is also a factor of that number. Choices (A), (B), and (C) are not divisible by 4.

Choice (D) works: $\frac{24}{4} = 6$. Therefore, the correct answer is (D). Note that 30 (E) is not divisible by 4 either.

9. **C**

When in doubt with exponents, expand them out. $(2^3)^2 = (2 \times 2 \times 2)^2 = (2 \times 2 \times 2) \times (2 \times 2 \times 2)$. There is a total of 6 twos, so the correct answer is (C), or 2^6 . Note: using exponent rules works too. Remember MADPSM. Since there is an exponent being raised to another power, multiply: $(2^3)^2 = 2^{3 \times 2} = 2^6$.

10. **A**

Since the answer choices represent possible values of M , plug in (PITA). The problem indicates that $\frac{1}{2}$ is greater than $\frac{M}{16}$. Notice that if you start with (C), $\frac{9}{16}$ will be greater than $\frac{1}{2}$ since $\frac{1}{2} = \frac{8}{16}$. Therefore, (B), (C), (D), and (E) are all too big, and (A) is the correct answer since $\frac{8}{16} > \frac{7}{16}$.

11. C

In an equilateral triangle, all sides are equal. If the sum of two sides is equal to 4, then each of the two sides is 2 since $\frac{4}{2} = 2$. To find the perimeter of a shape, add up all the sides. If each side is equal to 2, then the perimeter will be $2 + 2 + 2 = 6$. Thus, the correct answer is (C).

12. A

Use the chart provided to find her total mileage and the miles she drove on Monday. Her total mileage was 350, and she drove 35 miles on Monday. To find what percent 35 is out of 350, set up a proportion: $\frac{35}{350} = \frac{x}{100}$. Cross-multiply to get $350x = 3,500$, and divide to find $x = 10$. Therefore, the correct answer is (A).

13. E

Use the chart provided to find the miles she drove on Thursday (105 miles). Since the answer choices provide possibilities for the miles she drove on other days, plug in (PITA) to find each sum. In (A), the sum of the mileage is $35 + 50 = 85$. For (B), the result is $35 + 20 = 55$. For (C), the result is $70 + 50 + 35 = 155$. For (D), the result is $35 + 35 + 20 = 90$. Finally, for (E), the result is $35 + 35 + 35 = 105$. Choice (E) is the only option that equals the total miles driven on Thursday and is the correct answer.

14. C

Use the chart provided to find the miles she drove on Sunday (20) and Wednesday (50). The question now reads 20 is what percent of 50.

Translate the English words into their math equivalents: $20 = \frac{x}{100}(50)$.

Solve for x . $20 = \frac{50x}{100}$ reduces to $20 = \frac{x}{2}$. Multiply both sides by 2 to

get $x = 40$. 20 is 40% of 50, so the correct answer is (C). Note: you

can also solve by setting up a proportion: $\frac{20}{50} = \frac{x}{100}$.

15. **B**

The value of x is given, so plug 5 in for x : $\frac{1}{x} \Rightarrow \frac{1}{5}$. 20% is equivalent to $\frac{20}{100}$, which reduces to $\frac{1}{5}$. Therefore, the correct answer is (B). Note:

(A) equals $\frac{1}{10}$ and (C) equals $\frac{2}{5}$.

16. **A**

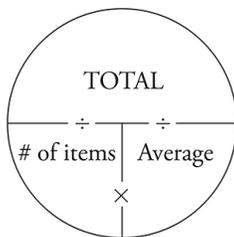
Translate the English words into their math equivalents. Remember that *of* means to multiply. 20% of 25% of 80 is $\frac{20}{100} \times \frac{25}{100} \times 80$.

Reduce the fractions to get $\frac{1}{5} \times \frac{2}{4} \times 80$. Multiply the numerators and denominators together: $\frac{1}{5} \times \frac{1}{4} \times \frac{80}{1} = \frac{1 \times 1 \times 80}{5 \times 4 \times 1} = \frac{80}{20} = 4$. The correct

answer is (A).

17. **A**

To find the average, use an average pie.



The total will be the sum of all the hours he worked over the 2 weeks:
 $3 + 5 + 8 + 8 + 40 = 64$. The number of items will be 2 since he worked 2 weeks. Divide to find the average: $\frac{64}{2} = 32$. Thus, the correct answer is (A). Note that (C) is only the total number of hours he worked during the first week.

18. **D**

To find the volume of a box, use the formula $V = l \times w \times h$. Plug the given dimensions into the formula: $V = 4 \times 8 \times 10 = 32 \times 10 = 320$. If this box is equal in volume to a box with dimensions $16 \times g \times 2$, then $16 \times g \times 2 = 320$. To find g , multiply to get $32 \times g = 320$. Then divide both sides by 32 to get $g = 10$. Therefore, the correct answer is (D). Note: another option is to use the answer choices (PITA). Choice (D) is the only option for g that makes the equation equal to 320.

19. **B**

Since there is a variable in the question, plug in a value for b . If $b = 10$, then two sweaters cost \$20. During the sale, two sweaters will cost \$15 since $\frac{1}{2}(10) = 5$ and $10 + 5 = 15$. Thus, during the sale, he will save \$5. To find the overall percent he will save means \$5 is what

percent of \$20. Translate the English words to their math equivalents:

$5 = \frac{x}{100} \times 20$. Solve for x . $5 = \frac{20x}{100}$ reduces to $5 = \frac{x}{5}$. Multiply both

sides by 5 to get $x = 25$, so the correct answer is (B). Note: you can

also solve by setting up a proportion: $\frac{5}{20} = \frac{x}{100}$.

20. **D**

Ben ate 6 dinners at steakhouses and visited 18 restaurants overall

since $8 + 4 + 6 = 18$, so convert $\frac{6}{18}$ into a percentage: $\frac{6}{18} = \frac{x}{100}$. $\frac{6}{18}$

reduces to $\frac{1}{3}$. Solve $\frac{1}{3} = \frac{x}{100}$ for x . Cross-multiply to get $3x = 100$.

Divide both sides by 3 to get $x = 33.\bar{3}$. Therefore, the correct answer is

(D).

21. **B**

Use the figure provided to determine the area of the shaded region.

One method to solve this problem is to find the total area and subtract out the unshaded area, or Total = shaded + unshaded. To find the area of a rectangle, use the formula $A = l \times w$. The area of the entire shape is $A = 8 \times 6 = 48$. The area of the unshaded region is $A = 6 \times 2 = 12$.

Thus, to find the area of the shaded region, plug the areas into the equation: Total = shaded + unshaded $\rightarrow 48 = s + 12$. Subtract 12 from both sides to get $s = 36$, and the correct answer is (B). Note that (A) is too large since that is the area of the entire shape. Choice (C) would be half the area of the entire shape, which doesn't make sense since the shaded area is greater than half of the entire area. Finally, (D) is the area of the unshaded portion.

22. **A**

Since the answer choices represent possible values for ■, plug in (PITA). If ■ equals 9, as in (C), then $(2 + \blacksquare + 3)(2) = 16 \rightarrow (2 + 9 + 3)(2) = 16$. Simplify the left side of the equation: $(2 + 9 + 3)(2) = (14)(2) = 28$. 28 is not equal to 16, so eliminate (C), (D), and (E) since they are too big. If ■ equals 8, as in (B), then $(2 + \blacksquare + 3)(2) = 16 \rightarrow (2 + 8 + 3)(2) = 16$. Simplify the left side of the equation: $(2 + 8 + 3)(2) = (13)(2) = 26$. 26 is not equal to 16, so eliminate (B). Therefore, the correct answer is (A). Note that if ■ equals 3, then $(2 + 3 + 3)(2) = (8)(2) = 16$.

23. **D**

Use a ratio box. The numbers for the ratio row are provided. Remember to add the 2 numbers to get the total.

	Cows	Pigs	Total
Ratio	16	1	17
Multiplier			
Real Value			

Since the answer choices represent possible values for the total real value (i.e. the total number of cows and pigs on the farm), the total real value needs to be divisible by 17. Eliminate (A) and (B) since those values are too small to be the total real value. Of the remaining answer choices, see which value is divisible by 17. Only (D) is, since $17 \times 4 = 68$. Therefore, the correct answer is (D).

24. **A**

Since there are variables in the question and answers, plug in a value for s (the number of films Sibyl has seen). If $s = 10$, then Linda has seen 6 films ($10 - 4 = 6$). If Linda has seen twice as many films than Joel, then Joel has seen 3 films $\left(\frac{6}{2} = 3\right)$. Since the question asks for the number of films Joel has seen, the correct answer will be the one that equals 3. Plug 10 in for s and check each answer choice. Choice (A) equals $\frac{10}{2} - 2 = 5 - 2 = 3$. Choice (B) equals $\frac{10}{2} - 4 = 5 - 4 = 1$. Choice (C) equals $10 - 2 = 8$. Choice (D) equals $10 - 4 = 6$. Choice (E) equals $\frac{8}{10 - 2} = \frac{8}{8} = 1$. Since it is the only one that matches the target value, (A) is the correct answer.

25. C

Don't be intimidated by weird symbols! Use the definitions provided and plug in the given values for x . For the first part of the equation, $@3$ means $x = 3$. Plug 3 in for x into the definition. Thus, $@x = 2x \rightarrow @3 = 2(3)$, and $2 \times 3 = 6$. For the second part of the equation, $@2$ means $x = 2$. Plug 2 in for x . Thus, $@x = 2x \rightarrow @2 = 2(2) \rightarrow 4$. Now the equation looks like $6 - 4 = 2$. The correct answer will be the one that is equal to 2. Eliminate (A) since $@4$ will not equal 2; it will be greater than $@3$, which was equal to 6. Also, eliminate (B) since $@2 = 4$, which is also bigger than 2. In (C), $@1$ means $x = 1$, so $@x = 2x \rightarrow @1 = 2(1) \rightarrow 2$. This matches the value of the original equation, so the correct answer is (C).

Section 2 Reading

1. C

On main purpose questions, ask yourself “Why did the author write this passage? What is the main takeaway for this passage?” This passage is focused on the history of Native American tribes: their origins, their formation, etc. This best matches (C). Although the current status of Native Americans is mentioned, it is only briefly touched on in the last sentence of the passage, so (A) cannot be the “main purpose.” Choices (B) and (D) are not mentioned in the passage, so they are incorrect. Although the passage mentioned various tribes, it does not provide the history of different tribes but Native Americans in general, eliminating (E). Choice (C) is the correct answer.

2. **C**

This is a specific question, so make sure to go back and find the answer in the passage. Geronimo is mentioned in the second paragraph, where it states that he became a famous historical figure after his capture. This best matches (C). There is no mention of disgrace, money, or suicide, all of which eliminates choices (A), (D), and (E). Since the passage clearly states that Geronimo was captured, we cannot assume he had no defeats, which eliminates (B). Choice (C) is the best answer.

3. **B**

On tone questions, eliminate answer choices that are too extreme or don’t make sense based on the passage. This passage is very informative and history-focused. This best supports (B), objective. Since the author does not express any strong feelings one way or another regarding this topic, (A), (C), and (E) can be eliminated. The author does not appear to be torn between two sides, they are just providing factual information, which eliminates (D) as well. Choice (B) is the correct answer.

4. **B**

This question is a “main idea” question in disguise. Look at each paragraph and see how they all connect to one another. The first paragraph introduces the origin of Native Americans. The second paragraph discusses the history of Native Americans in America. The third paragraph touches on where Native Americans live today for the most part. The most logical topic for the next paragraph will be on modern Native Americans, as that is what the author began to discuss at the end of the last paragraph. This best supports (B). Choice (A) is very strong, and does not connect directly back to any previous statement in the passage. Choices (C), (D), and (E) all contain information that is mentioned in the passage, but those topics have already been mentioned and moved on from in the passage. It would not make sense to bring them up again, paragraphs later. The correct answer is (B).

5. **D**

On Except/Not/Least questions, cross-check each answer choice and write a “T” for true and an “F” for false for each answer choice based on the passage. The false answer will be the correct choice. This question asks about skills possessed by Native Americans. The first paragraph mentions hunting, farming, and fishing as skills the Native Americans had, making (A), (B), and (C) all true. The second paragraph discusses the Native Americans’ rebellions, which makes (E) true as well. The only skill that is not mentioned in the passage is gathering, (D). This makes (D) false, and therefore the correct answer.

6. **A**

On main idea questions ask yourself the “So what?” of the passage. This passage is focused on a variety of ecological factors connected to deserts, such as the landscape, temperatures, and animals. This best

matches (A). Although the topics in (B), (C), and (D) are all mentioned in the passage, these answers are too specific to be the main idea of the passage. Since average temperatures are not mentioned, (E) is also incorrect. The correct answer is (A).

7. **C**

This is a very open-ended question, so check each answer choice with the information provided in the passage and eliminate as you go. Keep in mind that the examples you have of animal adaptation to the desert include ways to deal with lack of water and extreme temperature. The only answer choice that touches on either of these topics is (C), which relates to an adaptation to manage temperature. Although all of the other choices mention helpful adaptations, they don't relate to the specific challenges related to the desert. Choice (C) is the correct answer.

8. **B**

For style questions, pay attention to the way the author writes. This is a generally informative passage focused on desert environments. This best supports (B). There is nothing personal included in this story, which eliminates (D) and (E). Choice (A) is much too general, while (C) is much too specific. Choice (B) is the correct answer.

9. **E**

This is a specific question, so make sure to go back and find the answer in the passage. Camels are mentioned in the second paragraph as an example of adaptation to desert environments as they can go days without water. This best supports (E), as it is the only choice that mentions water. Although camels may exhibit the other adaptations listed in the other choices, there is no mention of these in the passage about camels. Choice (E) is the correct answer.

10. **D**

This is a very open-ended question, so check each answer choice with the information provided in the passage and eliminate as you go. The passage does not state that deserts can be filled with lush vegetation, it states the opposite, in fact. Eliminate (A). There is no indication that deserts have large bodies of water or receive large amounts of rainfall, eliminating (B) and (C). There is no mention of urban areas or cities in the passage, which eliminates (E). The passage does state in the first paragraph that deserts can be located in cold climates, which supports (D), making it the correct answer choice.

11. **B**

When answering a Vocabulary-in-Context question, focus on what the word means in the sentence. In line 5, “punishing” is used to mean “brutal” or “hard,” since it says such an environment makes basic aspects of life difficult. This best matches (B), harsh. Choices (A) and (D) are too extreme and literal. Choice (C) is not strong enough in this context, and (E) is the opposite of what the author is saying. Choice (B) is the correct answer.

12. **D**

On main idea questions, ask yourself the “So what?” of the passage. This passage is focused on the modern Olympics and how the games have changed since they began in ancient times. This best supports (D). Since the focus is on both modern and ancient Olympic games, (B) can be eliminated. Since the author neither justifies the existence of the games nor mentions the process for choosing a host city, (A) and (E) can be eliminated. Although the passage does mention both the Winter and Summer Olympics, the difference between those is not the main focus of the passage, which eliminates (C). The best answer is (D).

13. **A**

This is a specific question, so make sure to go back and find the answer in the passage. The author mentions the traditional dances and culture of the host city as support for the earlier assertion that the opening ceremony is a spectacular event. This best supports (A). The author never mentions specific host cities or their differences, which eliminates (B). This information is focused on the modern games, not the ancient games, which eliminates (C) and (D). Although (E) may seem correct, remember that this information is about the opening ceremony and not the games themselves. The correct answer is (A).

14. **B**

On tone questions, eliminate answer choices that are too extreme or don't make sense based on the passage. This passage is very informative and positive about the Olympic games, which best matches (B). Since the author is positive about the games, eliminate (A), (D), and (E). Although the author is positive, (C) is a little too extreme to fit the tone of this passage. Choice (B) is the correct answer.

15. **B**

This is a specific question, so make sure to go back and find the answer in the passage. The torch lighting is discussed in the last paragraph, in which it clearly states that the flame represents the spirit of the competition from the original games. This best matches (B). There is no mention of destruction, heat, or eternity mentioned in the last paragraph, eliminating (A), (D), and (E). Choice (C) is simply not supported by the passage; the games are not described as rousing in relation to the torch lighting. The correct answer is (B).

16. **C**

This is a very open-ended question, so check each answer choice with the information provided in the passage and eliminate as you go. The passage does not say whether or not women wanted to compete in the ancient games, it simply states that only men could compete.

Eliminate (A). The passage only tells us how often the modern Olympic games are held, so the passage does not support (B). The passage does say that the ancient games were held in Greece only, which does support (C). The passage does not mention ice skating, eliminating (D). And there is no mention of an opening ceremony during the ancient games, eliminating (E). Choice (C) is the correct answer.

17. A

This is a specific question, so make sure to go back and find the answer in the passage. The author mentions dinosaurs in the first paragraph to stress how old turtles are, as the dinosaurs lived a very long time ago. This best matches (A). The mention of dinosaurs does not provide any information related to turtles other than time and longevity, which eliminates all the other answer choices. The correct answer is (A).

18. C

This is a specific question, so make sure to go back and find the answer in the passage. At the beginning of the second paragraph, the author compares turtles to other reptiles by saying that other reptiles generally live in the tropics, while turtles live in a variety of environments. This best supports (C). The author does not say if other reptiles lived in the time of the dinosaurs, which eliminates (A). Turtles can live in a variety of climates, which eliminates (D). Choice (B) is the opposite of what the passage is saying, and (E) is never mentioned in the passage. Choice (C) is the best answer.

19. **E**

On tone questions, eliminate answer choices that are too extreme or don't make sense based on the passage. The author does not fully agree with reports that turtles live longer than a century, as he refers to such claims as "questionable" in the third paragraph. This best supports (E), skeptical. Choices (B) and (C) are much too extreme, and (A) and (D) do not match "questionable." The correct answer is (E).

20. **B**

This is a specific question, so make sure to go back and find the answer in the passage. At the end of the passage the author states that one way to tell the age of a turtle may be to count the growth rings that form on the shell. This best matches (B). Measurement, deterioration, and weight are never mentioned in regard to turtle age, eliminating (A), (C), (D), and (E). Choice (B) is the correct answer.

21. **B**

This is a very open-ended question, so check each answer choice with the information provided in the passage and eliminate as you go. Although the author is very interested in turtles, he does not say other reptiles aren't as interesting, so eliminate (A). The author does not address how long other animals live, eliminating (C). The author does not discuss whether or not turtles are "bad" or "dangerous," eliminating (D) and (E). The only answer choice supported by the passage is (B), as the author does include a great deal of information in the passage about turtles.

22. **A**

This question is a “main idea” question in disguise. Ask yourself the “So what?” of the passage. This passage is about the author’s excitement over visiting Norway and his connection to that country. This best supports (A). Although the journey is mentioned, it is not the main focus of the passage. Eliminate (C) and (E). The author does not state that he dislikes his siblings, eliminating (B). The author does not state whether or not life has changed at all, only that he has fond memories of his summer holidays. Eliminate (D). The correct answer is (A).

23. **B**

When asked a vocabulary in context question, focus on what the word means in the sentence. In lines 4 and 5, the word “idyllic” is meant to convey the very positive experience the author had during his time in Norway. This means you can eliminate (A), (D), and (E) as they are negative words. There is no reference to religion in the passage, eliminating (C). The only positive word provided that could be the answer is (B), pleasant.

24. **E**

This is a specific question, so make sure to go back and find the answer in the passage. Before using this line the author stresses that he is fully Norwegian and has a great deal of family there. The author then stresses that going back to Norway was like going home. This best matches (E), as people are generally happy and comfortable the most when they are home. Since the author is very positive about Norway, eliminate (A). The author does not say why his half-siblings go to Norway nor how long he stayed in Norway, eliminating (C) and (D). Although the author does say he goes to Norway every summer, this is not connected to his discussion of why he felt he was going home when he went to Norway. Eliminate (B). The correct answer is (E).

25. **B**

This is a specific question, so make sure to go back and find the answer in the passage. The author mentions the length of time it took to travel to stress how just getting to Norway was “an event.” This best supports (B). Since the author was positive about the journey to Norway, (A) and (C) are not supported by the passage. The author does not mention his half-siblings when discussing the journey, eliminating (D). The author also does not describe Norway when discussing the journey, eliminating (E). The correct answer is (B).

26. **D**

This is a specific question, so make sure to go back and find the answer in the passage. After the author uses the word “home,” they state that shells are the homes of shellfish. This best supports (D), the shells are the homes. Choices (C) and (E) are too vague compared to (D), so they should be eliminated. Choices (A) and (B) are not supported by the passage. The correct answer is (D).

27. **E**

This is a very open-ended question, so check each answer choice with the information provided in the passage and eliminate as you go. The only question that is answered in the passage is (E); in the second paragraph the passage describes how some shellfish make their shells. None of the other questions listed in the answer choices are addressed in the passage. Choice (E) is the answer.

28. **D**

This question is a “main idea” question in disguise. Ask yourself the “So what?” of the passage. This passage is about various information regarding shells. This best supports (D), a general discussion of shells.

The passage is not focused on the fish that live in shells, which eliminates (A), (B), and (C). The author does discuss how shells are formed, but that is only one piece of the passage, so (E) is too specific. The correct answer is (D).

29. A

This is a specific question, so make sure to go back and find the answer in the passage. The author makes the comparison between the bivalve's hinge and a door in order to explain to the reader how the bivalve shell is structured and how it works. This best supports (A). There is no mention of fragility, eliminating (B). The author is not discussing fish or how the shell is formed in this part of the passage, eliminating (D) and (E). There is also no mention of how these shells are found, only what they do, eliminating (C). Choice (A) is the correct answer.

30. C

This question is a "main idea" question in disguise. Ask yourself the "So what?" of the passage. This passage is about various information regarding shells: how they are formed, what purpose they serve, what kinds there are. The best match for this information is (C), since a large part of the passage is focused on how fish grow their own shells. Going to the beach and finding shells is mentioned but not the main focus of the story, eliminating (B) and (E). The passage mentions that shells can be beautiful, but this is also not the main point of the passage, eliminating (D). Conch shells are mentioned, but (A) is much too specific to be the main idea of the passage. The correct answer is (C).

31. E

This is a specific question, so make sure to go back and find the answer in the passage. In the last paragraph, the conch is described as being a single unit shell while others can be two units. This best supports (E). There is no other information provided about the conch shell, which eliminates all the other answer choices. Choice (E) is the correct answer.

32. **C**

This is a specific question, so make sure to go back and find the answer in the passage. The “hat” the author refers to is created by the bat’s fingers, which are attached to its wings. This best supports (C). The hat is formed by the bat itself, so you can eliminate (A), (D), and (E). The hat the bat forms is above its head, which eliminates (B). Choice (C) is the correct answer.

33. **D**

This is a specific question, so make sure to go back and check each choice with the information in the passage. In the first and last lines the bat is compared to a mouse, so choice I is correct. The flying pattern of the bat is described in lines five and six, which supports choice III. A vampire is never mentioned in the poem, so choice II is incorrect. The only correct answer is (D).

34. **B**

This is a specific question, so make sure to go back and find the answer in the passage. In line 5, the author is describing how the bat flies. This best supports (B). The author is discussing the bat, which eliminates (A), (C), and (E). The author refers to the bat seeming dead in the previous lines, not this line. Eliminate (D). The correct answer is (B).

35. C

This is a very open-ended question, so check each answer choice with the information provided in the passage and eliminate as you go. The passage is highly descriptive of the bat, and that description is not very positive. The author discusses how we can be afraid of the bat and how it looks. This best supports (C). We are not offered a great deal of factual information about the bat, which eliminates the other answer choices. Choice (C) is the correct answer.

36. E

On primary purpose questions, ask yourself “Why did the author write this passage? What is the main takeaway for this passage?” This passage is focused on sports uniforms and their beneficial aspects. This best supports (E). Although team spirit and safety are both mentioned as positive aspects of sports uniforms, these topics are much too specific to be the primary purpose of the passage. Eliminate (A) and (B). There is no history of uniforms provided, which eliminates (C). There is no controversy mentioned, eliminating (D). Choice (E) is the correct answer.

37. C

When asked a Vocabulary-in-Context question, focus on what the word means in the sentence. In line 12, “support” most nearly means “to cheer for,” since that’s what people do for their teams. This best supports (C). All the other choices are too literal for the context of this story.

38. B

On attitude questions, eliminate answer choices that are too extreme or don’t make sense based on the passage. The author is very positive

about uniforms in this passage, and thinks they serve several purposes. This eliminates (A) and (E). The author does not say what they are most useful for, which eliminates (C). The passage does not discuss whether or not uniforms are fun to wear, which eliminates (D). Only (B) is supported by the passage.

39. **D**

This is a specific question, so make sure to go back and find the answer in the passage. The uniforms for track and field are discussed in the second paragraph. According to this part of the passage, these uniforms are designed to help runners go faster. This best supports (D), since it is the only choice focused on their physical performance for the sport they are engaged in. Although the author does discuss safety and uniforms, it is in regard to other sports, which eliminates (C). Only (D) is supported by the passage.

40. **A**

This is a specific question, so make sure to go back and find the answer in the passage. The author discusses spectators in the final paragraph; spectators are able to tell who is on the team they are rooting for and can show their support by wearing similar colors. This best supports (A). Although the other choices may be true, they are not supported by the text of the passage and so cannot be correct. Choice (A) is the correct answer.

Section 3 Verbal

1. **A**

Obedient means “to follow directions.” A word or phrase you might be familiar with is obey, as in “to obey a command.” This meaning best matches (A), amenable.

2. **D**

To contaminate means to dirty. You might be familiar with the phrase “the water is contaminated,” meaning the water is dirty or could cause you harm if you were to drink it. This meaning best matches (D), taint.

3. **A**

Woeful means sorrowful; it comes from the word *woe*, which means misfortune or grief. This meaning best matches (A), wretched.

4. **D**

Practical most nearly means useful or rational. A phrase you might be familiar with is “a practical solution,” which would be a useful or effective solution. This meaning best matches (D), having great usefulness.

5. **A**

To scrutinize means to examine or inspect. A phrase you might be familiar with is “to scrutinize every last detail.” This meaning best matches (A), examine carefully.

6. **B**

To confide means to tell or reveal. You might be familiar with the phrase “to confide a secret.” This meaning best matches (B), entrust.

7. **C**

To initiate means to begin or to start. This meaning best matches (C), commence.

8. **A**

Fortunate most nearly means lucky; it comes from the word *fortune*, which has a positive connotation. This meaning best matches (A), lucky.

9. **E**

Crumble means to break down or break apart. A word or phrase you might be familiar with is “to crumble under pressure.” This meaning best matches (E), deteriorate.

10. **B**

Desperate means distressed. You might be familiar with the phrase “desperate times call for desperate measures.” This meaning best matches (B), frantic.

11. **C**

To fret means to worry or fuss over. You might be familiar with the phrase “no need to fret,” which means no need to worry. This meaning best matches (C), worry.

12. **D**

To disguise means to camouflage or masquerade. You might be familiar with the phrase “to disguise the truth,” which means to hide or conceal the truth. This meaning best matches (D), false front.

13. **A**

To assist means to help or aid. You might be familiar with the phrase “to provide assistance,” which means to provide help. This meaning best matches (A), support.

14. **D**

To reprimand means to warn or scold. You might be familiar with the phrase “to give a sharp reprimand.” This meaning best matches (D), chide.

15. **D**

To evade means to avoid or elude. You might be familiar with the phrase “to evade the question,” which means to avoid or elude the question. This meaning best matches (D), sidestep.

16. **A**

Fatigue means tiredness or exhaustion. You might be familiar with the phrase “to be overcome by fatigue,” which means to be overcome by exhaustion. This meaning best matches (A), grow weary.

17. **E**

An antidote is a cure or remedy. You might be familiar with the phrase “the antidote for a snake bite.” The best match for this meaning is (E), antitoxin.

18. **D**

To propose means to suggest or offer. You may be familiar with the word “proposal”; there are marriage proposals and business proposals, for instance. This meaning best matches (D), suggest. Don’t be fooled by (B), a marriage proposal is not an actual marriage, only the suggestion or offer of marriage.

19. **E**

Incredible means too good to be true or wonderful. This meaning best matches (E), extraordinary.

20. **A**

To be vigilant means to be watchful or attentive. You might be familiar with the phrase “vigilante justice,” which would be justice that is served when one sees a crime committed. A person is a vigilante because they are vigilant, or watchful. This meaning best matches (A), observant.

21. **A**

Tattered means worn, torn, or ragged. This meaning best matches (A), unkempt.

22. **C**

To precede means to come directly before. It includes the prefix “pre,” which means to come before (just like the word prefix!). This meaning best matches (C), come before.

23. **C**

To lament means to cry over or mourn. This meaning best matches (C), moan.

24. **B**

To engage means to involve or take part in. You might be familiar with the phrase “to be engaged in extracurricular activities,” which would mean to be involved in extracurricular activities. This meaning best matches (B), employ.

25. **D**

Competent means capable or well informed. This meaning best matches (D), able.

26. **D**

Sincere means honest or truthful. You might be familiar with the phrase “to sign a letter sincerely,” which means to sign off in a genuine way. This meaning best matches (D), genuine.

27. **E**

Rickety means unstable. This meaning best matches (E), feeble.

28. **A**

Conspicuous means obvious or clear. This meaning best matches (A), plain as day.

29. **C**

Versatile means easily changeable or flexible. This meaning best matches (C), adaptable.

30. **B**

Corroboration means agreement. You might be familiar with the phrase “to corroborate evidence or testimony in a trial.” That would mean to agree with or confirm evidence or testimony. This meaning best matches (B), confirmation.

31. **C**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a fish lives in water.” The only choice that works with this sentence is (C), a lion lives on land.

32. **B**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “sick is the opposite of healthy.” The only choice that works with this sentence is (B), jailed is the opposite of free.

33. **B**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a dancer uses their feet to perform.” The only choice that works with this sentence is (B), a juggler uses their hands to perform. Although (E) may seem to work as well, it is not as strong an answer as (B), as a musician could perform music from memory, therefore not using their eyes. A juggler must use their hands to juggle, making (B) the stronger answer.

34. **D**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a bystander watches an event.” The only choice that works with this sentence is (D), a spectator watches a game.

35. **D**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a baker makes bread.” The only choice that works with this sentence is (D), a sculptor makes a statue.

36. **D**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “igneous is a type of rock.” The only choice that works with this sentence is (D), watercolor is a type of painting.

37. **A**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “delicious is a good description of taste.” The only choice that works with this sentence is (A), melodious is a good description of sound.

38. **C**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a clog is a type of shoe.” The only choice that works with this sentence is (C), a beret is a type of hat.

39. **E**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a cube is a three-dimensional square.” The only choice that works with this sentence is (E), a sphere is a three-dimensional circle.

40. **B**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “jam is made from fruit.”

The only choice that works with this sentence is (B), butter is made from milk.

41. **E**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, an example sentence could be “mile is a measurement of length.” The only choice that works with this sentence is (E), quart is a measurement of volume.

42. **A**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a biologist is a type of scientist.” The only choice that works with this sentence is (A), a surgeon is a type of doctor.

43. **C**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a potter works with clay.” The only choice that works with this sentence is (C), a sculptor works with marble.

44. **B**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a clip is a small part of a movie.” The only choice that works with this sentence is (B), an excerpt is a small part of a novel.

45. C

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “ruthless is the opposite of mercy.” The only choice that works with this sentence is (C), naïve is the opposite of worldliness.

46. D

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a glacier is made out of ice.” The only choice that works with this sentence is (D), an ocean is made out of water.

47. D

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a window is made out of glass.” The only choice that works with this sentence is (D), clothing is made out of fabric.

48. E

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a buttress supports something.” The only choice that works with this sentence is (E), scissors cut something.

49. E

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a sneer is an expression of disdain.” The only choice that works with this sentence is (E), cringe is an expression of fear.

50. A

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a library houses books.” The only choice that works with this sentence is (A), a bank houses money.

51. A

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a famine is the absence of food.” The only choice that works with this sentence is (A), a drought is the absence of water.

52. A

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a teacher instructs a student.” The only choice that works with this sentence is (A), a coach instructs a player.

53. C

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “to muffle is to stop noise.”

The only choice that works with this sentence is (C), to build a dam is to stop a flood.

54. **B**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “exhaustion is the lack of rest.” The only choice that works with this sentence is (B), thirst is the lack of water.

55. **A**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a playwright creates a script.” The only choice that works with this sentence is (A), a choreographer creates a dance.

56. **B**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “gluttony is the love of food.” The only choice that works with this sentence is (B), avarice is the love of money.

57. **C**

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “facile is the lack of effort.” The only choice that works with this sentence is (C), inconsiderate is the lack of being thoughtful.

58. C

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “single-handed is the opposite of assistance.” The only choice that works with this sentence is (C), anonymous is the opposite of recognition.

59. C

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “a horse stays in a stable.” The only choice that works with this sentence is (C), a dog stays in a kennel.

60. C

Remember to make a sentence with the words in the analogy, and try to find the answer choice that matches the same sentence. For this question, one example sentence could be “dexterous is a characteristic of a pianist.” If your sentence doesn’t allow you to cross out four answer choices, you may need to make it more specific. A more specific example sentence could be “dexterous is a necessary characteristic of a good pianist.” The only choice that works with this sentence is (C), graceful is a necessary characteristic of a good ballet dancer.

Section 4 Math

1. A

There are several ways to solve this problem (e.g., using the Bowtie method or finding a common denominator for the fractions). Another option would be to convert the fractions to decimal form. Choice (A)

equals $0.\underline{7}5$, (B) equals 0.625 , (C) equals 0.5 , (D) is about 0.429 , and (E) is 0.55 . The answer that has the greatest value is (A), so it is the correct answer.

2. **A**

First find the factors of 12, which are all the numbers that multiply together to equal 12: 1 and 12, 2 and 6, and 3 and 4. To find the sum, add up all the factors: $1 + 2 + 3 + 4 + 6 + 12 = 28$. Therefore, the correct answer is (A).

3. **C**

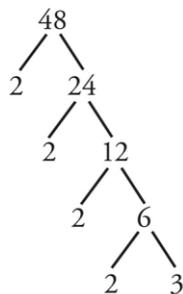
Remember order of operations (PEMDAS). Multiply first; then add: $16 + 2 \times 3 + 2 = 16 + 6 + 2 = 24$. The correct answer is (C).

4. **E**

Use the figure provided to find the relationship among the variables. In the figure, angles D and E are on the same line, so their angles total to 180° . The same is true for angles F and G ; since they are on the same line, their angles will total to 180° . Therefore, $D + E + F + G = 180^\circ + 180^\circ = 360^\circ$. The correct answer is (E).

5. **A**

Draw a factor tree of 48.



The prime factorization of 48 is $2 \times 2 \times 2 \times 2 \times 3$ or $2^4 \times 3$. Thus, the 2 different prime factors of 48 are 2 and 3, so the correct answer is (A). Note that (B), (C), (D), and (E) contain numbers that are not prime (4, 6, 8, and 12).

6. **A**

The product of 4 and 6 is 24 since $4 \times 6 = 24$. To find the difference between two numbers, subtract. Therefore, $24 - 12 = 12$, so the correct answer is (A).

7. **C**

There are 180° in a straight line, and there are a total of 180° in a triangle. Thus, the question is asking for the sum of 180° and 180° , which is 360° ($180^\circ + 180^\circ = 360^\circ$). The correct answer is (C).

8. **C**

Use the graph provided to find the requested values. The key indicates that the light gray shaded portion represents scarves, so he owns 2 scarves. The black shaded portion represents coats, so he owns 6 coats. Therefore, the total number of scarves and coats that he owns is 8, since $2 + 6 = 8$. The correct answer is (C).

9. **B**

Use the graph provided to find the total number of hats and garments he owns. The medium gray shaded portion represents hats, so he owns 3 hats. The total number of garments is the sum of all the portions in the graph: $4 + 2 + 3 + 6 = 15$. Therefore, the question is asking “3 is

what percentage of 15.” Set up a proportion to solve: $\frac{3}{15} = \frac{x}{100} \cdot \frac{3}{15}$ reduces to $\frac{1}{5}$. Cross-multiply $\frac{1}{5} = \frac{x}{100}$ to get $5x = 100$. Divide both sides by 5 to get $x = 20$. The correct answer is (B).

10. C

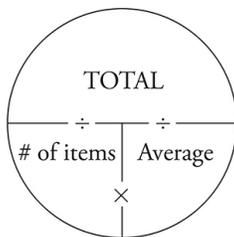
Use the graph provided to find the needed values. The total number of garments is the sum of all the portions in the graph: $4 + 2 + 3 + 6 = 15$. $\frac{1}{3}$ of 15 is 5 since $\frac{1}{3}(15) = \frac{15}{3} = 5$. The correct answer will be the one that equals 5. Since the answer choices provide possibilities for the types of garments, plug in (PITA) to find each sum. In (A), the sum is $3 + 6 = 9$. For (B), the sum is $4 + 2 = 6$. For (C), the sum is $3 + 2 = 5$. For (D), the sum is $4 + 6 = 10$. Finally, for (E), the sum is $4 + 2 + 3 = 9$. Choice (C) is the only option that equals 5 and is the correct answer.

11. A

If five slices of pizza cost \$10, then one slice of pizza costs \$2 since $\frac{10}{5} = 2$. If he has \$32, then he could buy 16 slices of pizza since $\frac{32}{2} = 16$. The correct answer is (A).

12. C

To find the average, use an average pie.



For this problem, draw three average pies. The first average pie will represent Mrs. Bennett's class. The average (85) and the number of items (10 students) are given. Multiply to find the total number of points scored on the test: $85 \times 10 = 850$. The second average pie will represent Mrs. Grover's class. The average (70) and the number of items (15 students) are given. Multiply to find the total number of points scored on the test: $70 \times 15 = 1,050$. Finally, the third average pie will represent the average score for both classes. To find the total, add the total points scored from both classes to get $850 + 1,050 = 1,900$. To find the number of items, pay attention to the question. It asks for the average score for all the students in the 2 classes. There are 10 students in one class and 15 students in the other, so there is a total of 25 students. The number of items is 25. Divide the total and the number of items to find the average: $\frac{1,900}{25} = 76$. Therefore, the correct answer is (C).

13. C

Since there are variables in the question and answers, plug in a value for e (the number of pencils Angelica bought). If $p = 10$, then Eliza bought 50 pencils since $5 \times 10 = 50$. If Angelica bought 10 pencils, then Peggy bought 8 pencils since $10 - 2 = 8$. The question asks for the total number of pencils bought, so add the 3 values to get the target value: $10 + 50 + 8 = 68$. The correct answer will be the one that equals 68. Plug 10 in for p and check each answer choice. Choice (A) equals $5(10) - 2 = 50 - 2 = 48$. Eliminate (B) since $7 \neq 68$. Choice (C) equals $7(10) - 2 = 70 - 2 = 68$. Choice (D) equals $8(10) = 80$. Choice (E) equals $8(10) - 2 = 80 - 2 = 78$. Since it is the only one that matches the target value, (C) is the correct answer.

14. E

Eliminate (A), (B), (C), and (D) since $\frac{4}{1,000} = 0.004$. Therefore, the correct answer is (E). Note that $\frac{3}{10} = 0.3$, and 3 should be the units digit (the first spot to the left of the decimal).

15. C

Don't be intimidated by weird symbols! Use the definitions provided and plug in the given values for f . $\boxed{0}$ means $f = 0$. Plug 0 in for f into the definition. Thus, $\boxed{f} = -2f \rightarrow 0 = -2(0)$, and $-2 \times 0 = 0$. Therefore, the correct answer is (C).

16. E

Don't be intimidated by weird symbols! Use the definitions provided and plug in the given values for f . For the first part of the equation, $\boxed{2}$ means $f = 2$. Plug 2 in for f into the definition. Thus, $\boxed{f} = -2f \rightarrow \boxed{2} = -2(2)$, and $-2 \times 2 = -4$. For the second part of the equation, $\boxed{3}$ means $f = 3$. Plug 3 in for f . Thus, $\boxed{f} = -2f \rightarrow \boxed{3} = -2(3) \rightarrow -6$. Now the

equation looks like $-4 \times -6 = 24$. The correct answer will be the one that is equal to 24. Eliminate (B) and (C), since the values of $\boxed{2}$ and $\boxed{3}$ have already been determined and neither equals 24. Try one of the remaining answer choices. In (E), $\boxed{-12}$ means $f = -12$, so $\boxed{f} = -2f \rightarrow \boxed{-12} = -2(-12) \rightarrow 24$. This matches the value of the original equation, so the correct answer is (E).

17. **B**

Convert $2\frac{1}{4}$ to a decimal: 2.25. Remember that % means out of 100, so $2.25\% = \frac{2.25}{100}$. Divide or move the decimal to the left 2 places to get 0.0225. Thus, the correct answer is (B).

18. **B**

To find the area of a triangle, use the formula $A = \frac{1}{2}(b)(h)$. Based on the figure provided, the base is $2h$ and the height is h . Since there are variables in the figure and the answer choices, plug in a value for h . If $h = 2$, then the height is 2 and the base is 4. Plug these values into the area formula: $\frac{1}{2}(b)(h) = \frac{1}{2}(4)(2) = 2 \times 2 = 4$. The correct answer will be the one that equals 4. Plug 2 in for h and check each answer choice. Choice (A) equals $2(2)^2 = 2 \times 4 = 8$. Choice (B) equals $(2)^2 = 4$. Choice (C) equals 2. Choices (D) and (E) do not equal 4. Since it is the only one that matches the target value, (B) is the correct answer.

19. **D**

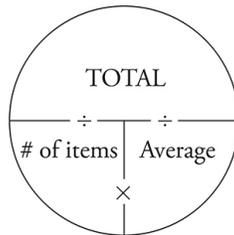
When in doubt with exponents, expand them out. $9^4 = 9 \times 9 \times 9 \times 9$. Be careful! Choice (E) is a trap answer (notice the addition symbol). Since each 9 can be written as 3×3 , $9 \times 9 \times 9 \times 9 = 3 \times 3$. The correct answer is (D). Note: using exponent rules works too. 9 can be written as 3^2 , so $9^4 = (3^2)^4$. Remember MADPSM. Since there is an exponent being raised to another power, multiply: $(3^2)^4 = 3^{2 \times 4} = 3^8$. There are eight 3s being multiplied in (D), so it is the correct answer.

20. **B**

Since there are variables in the question and answers, plug in a value for h (the cost to make 12 handkerchiefs). If $h = 12$, then it costs 1 cent to make 1 handkerchief. Therefore, the cost to make 30 handkerchiefs will be 30 cents since $30 \times 1 = 30$. The correct answer will be the one that equals 30. Plug 12 in for h and check each answer choice. Choice (A) equals $30(12) = 360$. Choice (B) equals $\frac{5(12)}{2} = \frac{60}{2} = 30$. Choice (C) equals $\frac{2(12)}{5} = \frac{24}{5}$, which is less than 5. Choice (D) equals $\frac{2}{5(12)} = \frac{2}{60}$, which is less than 1. Choice (E) equals $5(12) = 60$. Since it is the only one that matches the target value, (B) is the correct answer.

21. **B**

To find the average, use an average pie.



The total will be the sum of all the rocks in her collection: $12 + 16 + 8 + 8 = 44$. The number of items will be 4 since there are 4 types of rock in her collection: halite, sandstone, mica, and galaxite. Divide to find the average: $\frac{44}{4} = 11$. Thus, the correct answer is (B). Note that (E) is the total number of rocks in her collection, and (A), (C), and (D) represent the number of rocks of each type.

22. **E**

Set up a proportion to find the amount of water needed. If

$\frac{\text{water}}{\text{sugar}} = \frac{24}{2} = \frac{x}{12}$, then cross-multiply to get $2x = 288$. Divide both

sides by 2 to get $x = 144$. Therefore, the correct answer is (E).

23. **A**

240 is 60% of the number of people employed 5 years ago. Therefore,

5 years ago, there were 400 employees because $\frac{240}{x} = \frac{60}{100} \rightarrow 24,000$

$= 60x \rightarrow 400 = x$. Eliminate (C) because it is a trap answer. The

question is not asking for how many people were employed 5 years ago. The question is asking for *how many more* employees the company had 5 years ago than the number they have now. Thus, $400 - 240 = 160$, so (A) is the correct answer.

24. **C**

The answer choices represent possible values of B, so plug in (PITA). Start in the middle with (C). If $B = 3$, then the equation is $135 \times 15 = 2,025$, which is true. Therefore, the correct answer is (C). Note: if you started with a different answer choice, determine whether B needs to be bigger or smaller. Keep checking until you find the value of B that works.

25. **B**

If the area of each smaller square is 4, then use the area formula to find the length of one side of the square: $A = s^2$. If $4 = s^2$, then $\sqrt{4} = s$. Thus, $s = 2$. Since all 4 sides of a square are equal, each side equals 2. There are 5 small squares (each with a side measure of 2) that make up the width of the rectangle, so the width of the rectangle is 10 since $2 \times 5 = 10$. There are 11 small squares (each with a side measure of 2) that make up the length of the rectangle, so the length of the rectangle is 22 since $2 \times 11 = 22$. To find the perimeter of a shape, add up all of the sides. Since opposite sides of a rectangle are equal, the sides are 10, 22, 10, 22. Therefore, the perimeter is 64 since $10 + 22 + 10 + 22 = 64$. The correct answer is (B). Note that (A) is the area of the rectangle since $A = l \times w$.