



NOBLE

Multiple Choice Interim Assessment 9.1

Please Do Not Open Booklet Until Told to Do So

Noble Efforts Change Lives. Be Noble.

TEST 1: ENGLISH TEST
30 Minutes—40 Questions

DIRECTIONS: In this test, you will read four passages. In each passage, you will see words or phrases that are underlined and numbered. In the right hand column, you will see some alternative options. For each question, pick the answer that is most appropriate for standard written English or is most consistent with the tone and style of the passage as a whole. If you feel that no change is needed to the original version, choose “NO CHANGE.”

Once you have picked the option you feel is best, fill in the corresponding circle on your answer sheet.

Read each passage completely before you begin answering any questions regarding it. You cannot determine most answers without reading several sentences before and after the question.

PASSAGE I

Text adapted from *The Wonderful Wizard of Oz* by Frank L. Baum

The Wonderful Wizard of Oz

They walked through the forest until it became too dark to go any farther. Dorothy, Toto, and the Lion lay down to sleep while the Woodsman and the Scarecrow kept watch over them as usual.

When morning came, they started again.

Before they had went far, they heard a rumble, like the growling of many wild animals. Toto whimpered a little, but none of the others were frightened, and they kept along the quiet, dusty, and well-trodden path until they came to an opening in the wood, in which

hundreds of beasts of every variety we're gathered.

There were tigers, elephants, bears, wolves, foxes, and all the others in the animal world, and, for a moment,

Dorothy was afraid. To comfort her, the Lion explained that the animals were holding a meeting, and he judged by there snarling and growling that they were in great trouble.

1. **A.** NO CHANGE
B. will start
C. start
D. are starting

2. **F.** NO CHANGE
G. go
H. gone
J. had gone

3. **A.** NO CHANGE
B. quiet, dusty, and well-trodden, path
C. quiet, dusty and well-trodden path
D. quiet dusty, and well-trodden path

4. **F.** NO CHANGE
G. were
H. wear
J. where

5. **A.** NO CHANGE
B. they're
C. their
D. their's

GO ON TO THE NEXT PAGE.

As the Lion spoke, several of the beasts have⁶ caught₆ sight of him, and, at once, the great assemblage hushed as if by magic. The biggest of the tigers came up to the Lion and bowed, saying, "Welcome, O' King of Beasts! You have come in good time to fight our enemy and have brought hope to all the animals of the forest once more."

"What is your trouble?" asked the Lion quietly.

"We were⁷ all threatened," answered the tiger, "by a fierce enemy which has lately come into this forest. It is a most tremendous monster, like a great spider, with a body as big as an elephant and legs as long as a tree trunk. They have₈ eight long legs, and as the monster crawls through the forest, it uses its legs to seize an animal and drags its prey to its mouth, where it eats the victim as a spider does a fly. Not one among us are₉ safe while this fierce creature is alive, and we had called a meeting to decide how to take care of ourselves when you came among us."

The Lion turned nervously to look at his companions. This quest would greatly delay their journey.

10

6. **F.** NO CHANGE
G. caught
H. had caught
J. caught

7. **A.** NO CHANGE
B. You were
C. They were
D. We are

8. **F.** NO CHANGE
G. It has
H. It had
J. They had

9. **A.** NO CHANGE
B. is
C. was
D. were

Question 10 asks about the preceding passage as a whole.

10. Which of the following best describes the main idea of the passage?
- F.** While traveling, Dorothy and her friends learn about a danger in the forest from the animals.
G. The Lion determines how to take care of the tremendous monster in the forest.
H. The tiger was afraid of the tremendous spider.
J. Dorothy and her friends are on an exciting journey through the forest.

GO ON TO THE NEXT PAGE.

PASSAGE II

Text adapted from *Roosevelt in the Bad Lands* by Herman Hagedorn

Roosevelt in the Bad Lands

There was nothing very theatrical awaiting Theodore Roosevelt. The "depot" was deserted.

Roosevelt dragged his belongings through the sagebrush toward a huge black building looming northeastward and hammered¹¹ on the door until the proprietor appeared, muttering curses.

- 11. A. NO CHANGE
- B. hammers
- C. has hammered
- D. is hammering

The face that Roosevelt saw, in the light of the smoky lanterns, were¹² not one to inspire confidence in a tenderfoot on a dark night. The feature's¹³ were those of a man who might have been drinking, with inconsiderable interruptions, for a very long time. He was short and stout and choleric, with a wiry moustache under a red nose, and we seemed¹⁴ to be distinctly under the impression that Roosevelt had done something for which he should apologize.

- 12. F. NO CHANGE
- G. is
- H. are
- J. was

- 13. A. NO CHANGE
- B. features'
- C. features
- D. feature

- 14. F. NO CHANGE
- G. he seems
- H. he seemed
- J. they seemed

He showed¹⁵ the way upstairs. Fourteen beds were scattered about the loft, which Roosevelt subsequently heard was known as the "bull-pen." One bed was unoccupied. He excepted¹⁶ it without a murmur.

- 15. A. NO CHANGE
- B. He shows
- C. They showed
- D. I showed

- 16. F. NO CHANGE
- G. exited
- H. expected
- J. accepted

GO ON TO THE NEXT PAGE.

What Roosevelts' roommates¹⁷ noticed the next morning, when they discovered the future president had appeared, is lost to history. However, history states he was¹⁸ unquestionably frank, profane, and unwashed. Roosevelt was, in fact, not a sight to awaken sympathy in the minds of such inhabitants as Little Missouri possessed. He had just recovered from an attack of cholera morbus, and, though he had wrote¹⁹ his mother from Chicago that he was already "feeling like a fighting-cock," the marks of his illness were still on his face. Besides, he wore glasses, which, as he later discovered, were considered in the Bad Lands as a sign of a "defective moral character."

20

17. A. NO CHANGE
B. Roosevelt's roommates
C. Roosevelts' roommates'
D. Roosevelt's roommates'
18. F. NO CHANGE
G. it was
H. we were
J. he is
19. A. NO CHANGE
B. written
C. had writed
D. had written

Question 20 asks about the preceding passage as a whole.

20. Which of the following best describes the main idea of the passage?
- F. The young Roosevelt was criticized for not being very presidential.
G. The accounts of Roosevelt's roommates help us better understand his character.
H. Roosevelt was not accepted because he wore glasses.
J. Roosevelt's toughness seemed suited to an unwelcoming environment.

GO ON TO THE NEXT PAGE.

PASSAGE III

Text adapted from *The Book of Dragons* by Edith Nesbit

The Book of Dragons

John the blacksmith had a wife and a little baby. When his wife is not doing²¹ the housework, she used to hold the baby and cry, remembering the happy days when she lived with her father. She remembered her father's noise cows,²² and how she lived in the country, and when John used to come courting her in the summer evenings, as smart as could be, with a posy in his buttonhole. Now, John's graying hair was²³ thin, his eyes were tired, and his family rarely had²³ enough to eat.²³

One evening, the blacksmith was busy with his furnace. He was²⁴ making a goat-shoe for a very rich farmer's goat. The farmer wished to see how the goat liked being shod and also weather²⁵ the shoe would come to fivepence or sevenpence before he ordered the whole set. This was the only order John had had that week. As he worked, his wife sat and held the baby, who, despite the family's hardships, were²⁶ not crying.

Presently, over the noise of the bellows and over the clank of the iron, there came another sound. The blacksmith and his wife, not to busy to hear²⁷ the noise, looked at each other.

"I heard nothing," said he.

"Neither did I," said she.

21. A. NO CHANGE
B. has not been doing
C. was not doing
D. will not be doing
22. F. NO CHANGE
G. noisy cows
H. noisily cows
J. more noisier cows
23. A. NO CHANGE
B. Now, John's graying hair was thin, his eyes were tired and his family rarely had enough to eat.
C. Now, John's graying hair was thin his eyes were tired, and his family rarely had enough to eat.
D. Now, John's graying hair was thin his eyes were tired and his family rarely had enough to eat.
24. F. NO CHANGE
G. One was
H. They were
J. It was
25. A. NO CHANGE
B. wither
C. wether
D. whether
26. F. NO CHANGE
G. was
H. are
J. is
27. A. NO CHANGE
B. too busy to hear
C. too busy too hear
D. to busy too hear

GO ON TO THE NEXT PAGE.

However, the noise grew louder—and the two were so anxious not to hear it that he hammered away at the goat-shoe more hard than he had ever hammered in his life, and she began to sing to the baby—a thing she had not had the heart to do for weeks.

28. F. NO CHANGE
G. hardest
H. harder
J. more harder

But through the blowing, hammering, and singing, the noise becomes louder and louder, and the more they tried not to hear it, the more they did. It was like the noise of some great creature purring, purring, purring—and the reason they did not want to believe they really heard it was that it came from the great dungeon down below, where the old iron was, and the firewood and the twopence worth of coal, and the broken steps that went down into the dark, ending no one knew where.

29. A. NO CHANGE
B. became
C. has become
D. has become

PASSAGE IV

Text adapted from *The Science of Fingerprinting* by Dwight D. Eisenhower

The Science of Fingerprinting

Criminal identification, found by taking someone's fingerprints, are one of the most effective factors in apprehending fugitives who might otherwise escape arrest. This type of identification also makes possible an accurate number of arrests and convictions which, of course, resulted in the construction of more equitable sentences by the judiciary. In addition, this system of identification enables the prosecutor to present his case in light of an offender's previous record. It also provides the correctional, officers, the parole board, and the governor with definite

30. F. NO CHANGE
G. are creating
H. create
J. is

31. A. NO CHANGE
B. had resulted
C. results
D. was resulting

32. F. NO CHANGE
G. It also provides the correctional officers, the parole board, and the governor
H. It also provides, the correctional officers, the parole board, and the governor
J. It also provides the correctional officers, the parole board, and the governor

GO ON TO THE NEXT PAGE.

information upon which to base their judgment in dealing with criminals.

Since its introduction, fingerprinting, because of its peculiar adaptability to the field, has been associated with criminal identification. However, the Civil File of the Identification Division of the Federal Bureau of Investigation contains³³ three times as many fingerprints as the Criminal File. These civil fingerprints are an invaluable aid in identifying amnesia victims, missing persons, and unknown deceased. The victims of major disasters may be identified if his fingerprints are³⁴ on file, thus providing a humanitarian benefit not usually associated with fingerprint records.

The science of fingerprinting is based upon analyzing ridges that appear on the inside of the end joints for³⁵ the fingers and thumbs. These ridges has³⁶ definite contours and appeared³⁷ in several general pattern types, each with general and specific variations of the pattern, dependent on the shape and relationship of the ridges. The ridge's outlines³⁸ appear most clearly when inked impressions are taken upon paper so that the ridges are black against a white background. This result is achieved by the ink adhering to the friction ridges. Impressions may be made with blood, dirt, grease, or any foreign matter present on the ridges. The background or medium may be paper, glass, porcelain, wood, cloth, wax, putty, silverware, or any smooth, nonporous material.

33. A. NO CHANGE
B. contain
C. have contained
D. has been containing
34. F. NO CHANGE
G. their fingerprints were
H. their fingerprints are
J. his fingerprints were
35. A. NO CHANGE
B. of
C. about
D. beyond
36. F. NO CHANGE
G. was
H. having
J. have
37. A. NO CHANGE
B. appear
C. had been appearing
D. are appearing
38. F. NO CHANGE
G. ridge's outline's
H. ridges outlines'
J. ridges' outlines

GO ON TO THE NEXT PAGE.

Of all the methods of identification, fingerprinting alone has proved to be both infallible and feasible. Its superiority over the older methods, such as branding, tattooing, distinctive clothing, photography, and body measurements, has been demonstrated time after time. While many cases of mistaken identification have occurred through the use of these older systems, to date no two individuals' fingerprints have been found to be identical.

39

40

39. A. NO CHANGE
B. two individuals fingerprints'
C. two individual's fingerprints
D. two individuals fingerprints

Question 40 asks about the preceding passage as a whole.

40. Which of the following best describes the main idea of the passage?
- F. Fingerprinting can only be used in criminal cases.
G. Fingerprinting is a highly reliable way to determine a person's identity.
H. No two fingerprints are the same.
J. There is a lot of debate among scientists about the reliability of fingerprinting.

TEST 2: MATH TEST
30 Minutes—30 Questions

DIRECTIONS: In this test you are to solve each problem, choose the correct answer and fill in the corresponding circle on your answer sheet. Try to avoid spending too much time on any one problem. You want to solve the ones you can quickly; then come back to the others in the time remaining.

You are allowed to use a calculator for this test; but, some problems may be best done without using the calculator. You may do your figuring on the right side of each page.

Also, please note that unless the problem indicates it, you can assume the following:

- Geometric figures lie in a plane
 - Diagrams are not drawn to scale
 - The word *line* means a straight line
 - The word average indicates arithmetic mean. For example, the average of 1, 2, and 3 is $\left(\frac{1+2+3}{3}\right)$.
-
-

1. Eric ate N hot dogs and Marilyn ate S hot dogs, with S being greater than N . How many more hot dogs did Marilyn eat than Eric?

DO YOUR FIGURING HERE

- A. $N - S$
B. $S - N$
C. $N + S$
D. $\frac{N}{S}$
E. $\frac{S}{N}$
2. Find the least common denominator for the following fractions: $\frac{1}{5}$, $\frac{5}{8}$, and $\frac{7}{10}$
- F. 23
G. 40
H. 50
J. 80
K. 400

GO ON TO THE NEXT PAGE.

DO YOUR FIGURING HERE

3. You have two one-gallon jugs in the refrigerator. If you have $\frac{3}{8}$ of one jug of milk and $\frac{1}{2}$ of another jug, how much milk would you have if you combined the two jugs?

- A. 0.125 gal.
- B. 0.1875 gal.
- C. 0.5625 gal.
- D. 0.875 gal.
- E. 2.875 gal.

4. What is the sum of all the factors of 24?

- F. 60
- G. 59
- H. 36
- J. 35
- K. 24

5. What is the digit in the tenths place of the

decimal form of $7\frac{5}{8}$?

- A. 2
- B. 5
- C. 6
- D. 7
- E. 8

6. How many of the integers between 39 and 129 are divisible by 5?

- F. 17
- G. 18
- H. 19
- J. 20
- K. 21

7. Simplify the following expression:

$$1 + 4[18 \div 3(6 - 8)]$$

- A. -47
- B. -11
- C. 13
- D. 49
- E. 137

8. If $p = 3$ and $m = 4$, what is the value of the expression: $-p + 2m$?

- F. -5
- G. -4
- H. 5
- J. 7
- K. 11

9. Which of the following fractions are equivalent:

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

II. $\frac{18}{24}$

III. $\frac{12}{18}$

- A. I and III
- B. I and II
- C. II and III
- D. All are equivalent
- E. None are equivalent

10. If last week Gregory downloaded 6 songs each day from Monday to Friday and downloaded 13 songs on Saturday and another 13 songs on Sunday, what was the average number of songs he downloaded per day?

F. 2.7
G. 6.1
H. 8
J. 9.5
K. 10.7

11. Which of the following operations is the most efficient method to solve for the unknown variable n ?

$$n + 10.2 = 27$$

A. Add 10.2 to both sides
B. Subtract 10.2 from both sides
C. Multiply by 10.2 on both sides
D. Add 27 on both sides
E. Subtract 27 on both sides

12. What is the value of $6a^2 - b$ when $a = -3$ and $b = -8$?

F. -62
G. -46
H. 44
J. 46
K. 62

13. Vivian made 46 free throws out of 71 attempts during the basketball season. What percentage, rounded to the nearest whole number, of her free throws did she make during this season?

A. 35%
B. 46%
C. 59%
D. 64%
E. 65%

14. Three mechanical birds each begin a race around a track at the same time. The first bird is set to complete a lap every 3 minutes, the second bird completes a lap every 4 minutes, while the last bird completes a lap every 6 minutes. How many minutes after the start will all three birds be at their respective starting positions for the first time?
- F. 12
G. 13
H. 24
J. 48
K. 72
15. In July, the record high temperature was 105° F. In January, the record low was -21° F. What is the difference, in degrees Fahrenheit, between the record in July and the record in January?
- A. -84
B. -21
C. -5
D. 84
E. 126
16. For integers a and b , if $ab = 72$, which of the following is not a possible value of a ?
- F. 2
G. 3
H. 4
J. 5
K. 6
17. The cost of just one ticket for the rides at the carnival was \$3.00. If you purchased a special bargain book of 15 tickets the cost was \$39.00. How much would each ticket cost if you purchased a bargain book?
- A. \$39.00
B. \$13.00
C. \$5.00
D. \$3.00
E. \$2.60

18. A road map is drawn to scale so that 2 inches represents 80 miles. How many miles does 5 inches represent?
- F. 400
 - G. 200
 - H. 83
 - J. 40
 - K. 32
19. At a pie eating contest, Contestant A ate $\frac{3}{4}$ of his pie, Contestant B ate $\frac{3}{5}$ of her pie, Contestant C ate $\frac{7}{10}$ of his pie, Contestant D ate $\frac{1}{20}$ of her pie, and Contestant E ate $\frac{1}{5}$ of her pie. Which contestant ate the greatest portion of his or her pie?
- A. Contestant A
 - B. Contestant B
 - C. Contestant C
 - D. Contestant D
 - E. Contestant E
20. The numerator of a fraction is 6. Which of the following could be the denominator of the fraction so that it is already in lowest terms?
- F. 9
 - G. 12
 - H. 15
 - J. 18
 - K. 19

21. The school has 30 boxes of granola bars and each box contains 12 granola bars. The granola bars are to be shared evenly by 20 classrooms. How many granola bars does each classroom get?

- A. 360
- B. 50
- C. 20
- D. 18
- E. 2.1

22. On a test with 80 questions, a student answered 70% of the questions correctly. How many questions did the student answer correctly?

- F. 88
- G. 70
- H. 56
- J. 44
- K. 24

23. In order to calculate the cost, in dollars, of taking her family to the movies, Mrs. Noble uses the expression $10a + 6c$, where a is the number of adults and c is the number of children. If she and her husband go to the movies with four children, how much would they have to pay?

- A. \$22
- B. \$34
- C. \$44
- D. \$52
- E. \$136

24. An *arithmetic sequence* is one in which the difference between consecutive terms is the same. Which numbers should be placed in the blanks below to make the following an arithmetic sequence?

13, ____, ____, 49...

- F. 13, 49
- G. 23, 39
- H. 25, 37
- J. 25, 40
- K. 31, 31

25. The grocery store is having a sale on fruit. Apples cost \$0.45 each and oranges are \$0.75 each. Which of the following expressions represents the total cost, in dollars, of a apples and b oranges?
- A. $1.20(a + b)$
 - B. $0.45a + 1.20b$
 - C. $1.20ab$
 - D. $0.45a + 0.75b$
 - E. $1.20a + b$
26. If x is the least common multiple of 4, 8, and 12, what is the value of $3x - 4$?
- F. 2
 - G. 8
 - H. 24
 - J. 32
 - K. 68
27. Ms. Noble has a class of 20 students. Three students move away to a different school, but a week later 1 more student joins the class. If Ms. Noble wants to split her class into groups of 3, how many groups will she have?
- A. 3
 - B. 6
 - C. 8
 - D. 18
 - E. 24
28. Which of the following represents “7 and 38 thousandths,” rounded to the nearest hundredth?
- F. 7.4
 - G. 7.38
 - H. 7.04
 - J. 7.038
 - K. 7.0038

DO YOUR FIGURING HERE

29. A teacher gave his students 5 new words to spell every day for the first 5 days of school. In the 2nd week of school, the teacher gave the students 4 new words each day for 4 days and then on the 5th day of the 2nd week he gave the spelling test covering all the words. How many words in total were on the test?

- A. 82
- B. 41
- C. 25
- D. 16
- E. 9

30. Which of the following is ordered from least to greatest?

F. $\frac{1}{2}, \frac{1}{3}, \frac{3}{10}, \frac{4}{5}$

G. $\frac{1}{3}, \frac{1}{2}, \frac{3}{10}, \frac{4}{5}$

H. $\frac{1}{3}, \frac{3}{10}, \frac{1}{2}, \frac{4}{5}$

J. $\frac{3}{10}, \frac{1}{3}, \frac{1}{2}, \frac{4}{5}$

K. $\frac{4}{5}, \frac{1}{2}, \frac{1}{3}, \frac{3}{10}$

END OF TEST 2
STOP! DO NOT TURN THE PAGE UNTIL TOLD TO DO SO.
DO NOT RETURN TO THE PREVIOUS TEST.

TEST 3: READING TEST
30 Minutes—30 Questions

DIRECTIONS: There are three passages on this test, each followed by 10 questions. After reading a passage, choose the best answer for each question and fill in the corresponding circle on your answer sheet. You can refer back to the passage as often as needed.

Passage I

PROSE FICTION: This passage is adapted from the short story “The Red Guitar.”

Meyers was in love with his guitar, a 1967 bright red Gibson ES-335. It was as fine-sounding an electric guitar as Meyers had ever heard in his 50 years of playing. Its smooth-as-satin neck was decorated with gorgeous mother-of-pearl inlays. It had double pickups with precise controls and a sweet resonance from its semi-hollow body that made it able to deliver virtually any sound Meyers could ask from it, from hard-driving rock-and-roll to the mellowest smooth jazz and R&B.

But that wasn’t the reason for Meyers’ passion about the old guitar. He loved it because it was his oldest and most constant friend. The guitar had been his companion for more than four decades, longer than any human being in his life. His parents were dead, and his sister lived in California. None of his friends had been around when he bought the guitar. He had lost touch with the people he knew back then. The guitar had traveled with him to Europe nine times, something no human being had done. Neither of his marriages had lasted, and even though he could not imagine existence without his daughter, she was only 32, more than 10 years younger than his guitar, and she had been part of his life for just three-quarters of the time the instrument had fit so perfectly against his waist.

He even discussed the unique position of the guitar in his consciousness on the rare occasions that he, as a hired sideman, talked to an audience. “This instrument and I have had the most durable relationship of my life,” he would say. The remark drew amused chuckles from people who had no idea that he was telling the absolute, un-ironic truth.

Meyers had forever treated the guitar with such reverent care that its value was astronomical. The ivory banding on the body had yellowed a bit, and the red sheen had acquired a dull patina. For a collector, these realities simply confirmed its age. More importantly, Meyers had the original bill of sale. Had he wanted to sell it, he could have asked \$20,000, and someone would have paid it without blinking an eye. At an auction, his beautiful old 335 might have garnered \$50,000. But Meyers did not intend to sell the guitar. He didn’t consider it an investment. He imagined that he would bequeath his lifelong helpmate to his daughter when he died. She could sell it if she wanted to. It would probably be worth even more by then.

It wasn’t lost money that drained the blood from Meyers’ face when a clumsy percussionist in a mambo band bumped a rack of agogo bells, tipping the steel frame into the red guitar and knocking the 335 from its stand. Time briefly froze for Meyers, a static moment when the falling guitar seemed suspended in air. Then the guitar hit the concrete floor. The blow and the tension of its strings snapped the head from the neck.

And for one lonely man whose dexterous fingers floated across a rosewood fingerboard and metal frets to produce lovely music in any style, the past and future disappeared. The world came to an end.

GO ON TO THE NEXT PAGE.

1. As used in line 7, the word *resonance* means:
 - A. tone.
 - B. shine.
 - C. feeling.
 - D. appearance.
2. In the first paragraph (lines 1–11), the main point is that:
 - F. Meyers designed his ES-335 with double pickups and accurate controls.
 - G. Meyers loved his guitar only because it was beautiful.
 - H. Meyers loved his ES-335 for its beauty and function.
 - J. Meyers knew his guitar was better than any other guitar in existence.
3. Before Meyers' guitar fell on the concrete floor:
 - A. a percussionist bumped into a set of bells.
 - B. its head snapped from the neck.
 - C. its resale value decreased.
 - D. Meyers joined a successful band.
4. Which of the following statements best summarizes the main idea of the second paragraph (lines 12 – 28)?
 - F. Meyers' passion for his guitar grew when he learned to play smooth jazz and R&B.
 - G. Meyers loved his guitar because of how long it had been in his life.
 - H. Meyers valued his guitar more than life.
 - J. Meyers' guitar had been in his life for three-quarters of his daughter's existence.
5. It can be reasonably inferred from the second paragraph (lines 12 – 28) that Meyers:
 - A. disliked his sister who lives in California.
 - B. had begun to lose passion for his guitar.
 - C. could imagine life without his daughter.
 - D. struggled to maintain most relationships.
6. The purpose of the third paragraph (lines 29 – 36) is to show that:
 - F. Meyers had an unusual relationship with his guitar that was not easily understood by his audiences.
 - G. Meyers' audiences knew that he was telling the truth when he described his close relationship with his guitar.
 - H. Meyers was hired as a sideman to talk about his guitar to interested audiences.
 - J. Meyers took a unique position on stage that drew amused chuckles from people.
7. The passage indicates that at auction Meyers' guitar could sell for as much as:
 - A. \$335.
 - B. \$1,967.
 - C. \$20,000.
 - D. \$50,000.
8. As used in lines 56 – 57, the phrase “time briefly froze” most nearly means:
 - F. everything became colder.
 - G. everything was suspended in the air.
 - H. everything seemed to stand still.
 - J. everything became tense.
9. Which of the following statements best summarizes the main idea of the fifth paragraph (lines 52 – 61)?
 - A. The percussionist bumped the agogo bells into Meyers' guitar.
 - B. Meyers was upset about the money he lost when the guitar broke.
 - C. The guitar's strings snapped the head from the neck of the guitar.
 - D. Meyers was horrified when the guitar was knocked over and broken.
10. According to the first paragraph (lines 1 – 11), Meyers' guitar was:
 - F. completely hollow with double pickups.
 - G. able to produce a variety of sounds.
 - H. a fine-sounding acoustic guitar.
 - J. decorated with satin and pearls.

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Passage II

SOCIAL SCIENCE: The following chapter entitled, “Seabiscuit: the Wonder Horse that Captured the Nation’s Heart,” was taken from the text *Finding Inspiration in History*.

In 1936 a crooked-legged, stub-tailed little racehorse named Seabiscuit emerged from his stall and onto the racetrack to capture the weary and worried mind of Americans crushed by the economic crisis of the Great Depression. In just a six-year career he won 33 races and drew throngs to racetracks and radios around the country. He received more coverage in newspapers and on the airwaves than President Franklin D. Roosevelt. Maybe it was because, like the battered populace, Seabiscuit overcame tremendous odds with an enormous heart.

Although he had won a few races at the start of his career, by age three Seabiscuit was being used as a “bait” horse. He was whipped into a lead during training races and then pulled up short to give other horses confidence as they overtook him. This harsh use nearly broke the colt’s spirit.

Yet when a taciturn, renegade horse trainer named Tom Smith first looked into Seabiscuit’s eyes, he thought he saw in the horse the soul of a champion. But first he needed to help Seabiscuit recover from the abuse he had endured. Smith put Seabiscuit on a premium diet of timothy grass and, knowing the horse was still a “teenager,” let him sleep as much as he liked. Then Smith gave him friends, beginning with a gentle old horse named Pumpkin who would become Seabiscuit’s lifelong companion, traveling back and forth across the country with him to races. Smith added a stray dog, a goat, and a spider monkey, and Seabiscuit began to beef up and calm down.

Finally, Smith gave Seabiscuit an unlikely rider. At a height of five feet, six inches, Red Pollard was taller than most jockeys. He was also blind in one eye- it was almost impossible for him to judge the distance

between horses during races. But when he met Seabiscuit, it was as if each felt the pull of fate. Sensing the bond, Smith hired Pollard. The unconventional team changed racing history.

During his fourth year, Seabiscuit won eleven of fifteen starts and set track records in four races. The nation took notice. Soon, only War Admiral, the regal 1937 winner of horse racing’s Triple Crown, remained unbeaten by Seabiscuit. Although War Admiral and Seabiscuit were related—they had the same grandsire—the two looked nothing alike. War Admiral was the epitome of a big, majestic thoroughbred. Seabiscuit looked like, well, Seabiscuit.

In a famous match race—a race in which only the two horses participated—Seabiscuit and War Admiral met on November 1, 1938. Some 40 million people, one out of three Americans, listened on the radio. But Seabiscuit’s friend and jockey, Red Pollard, lay in a hospital bed with a broken leg. So Seabiscuit was mounted that day by George Woolf, a friend of Pollard’s.

Seabiscuit usually outran every horse from the start, but the racing experts all believed the elegant War Admiral would set the pace. The experts were wrong. Seabiscuit led from the bell that began the race. But on Pollard’s advice, Woolf deliberately braked the horse and allowed War Admiral to catch up. Just as Pollard had predicted, Seabiscuit locked eyes with the other horse, then streaked to a four-length win over the champion. By all reports, War Admiral’s spirit never recovered, but the nation was buoyed by the victory of the underdog. Seabiscuit helped a battered country believe that despite adversity, will and hard work can lead to triumph.

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11. According to the passage, who won racing's Triple Crown in 1937?
- A. Red Pollard.
 - B. War Admiral.
 - C. Seabiscuit.
 - D. Pumpkin.
12. As used in lines 16 – 17, the phrase “pulled up short” most nearly means:
- F. held back.
 - G. abused greatly.
 - H. trained less.
 - J. praised.
13. The narrator mentions all of the following about Seabiscuit's race against War Admiral, EXCEPT:
- A. Seabiscuit's regular jockey, Red Pollard, was unable to ride him for the race.
 - B. Seabiscuit deliberately started the race behind War Admiral but won in the end.
 - C. Seabiscuit and War Admiral locked eyes momentarily.
 - D. Seabiscuit ultimately won the race.
14. The “battered populace” in line 11 refers to:
- F. the people suffering from the Great Depression.
 - G. other horses who have raced and won, despite the likelihood of defeat.
 - H. those receiving coverage in newspapers.
 - J. the jockeys who ride race horses.
15. Which of the following best summarizes the main idea of paragraph five (lines 44 – 53)?
- A. Because they were related, War Admiral and Seabiscuit looked alike.
 - B. Seabiscuit and War Admiral both had recorded successes, but differed in appearance.
 - C. Seabiscuit won eleven of fifteen starts and set track records in four races.
 - D. Because Seabiscuit's success was noticed by the nation, it was clear that he would beat War Admiral.
16. According to the passage, Red Pollard:
- F. was 5 feet 6 inches, shorter than most jockeys.
 - G. broke his leg and was unable to race Seabiscuit against War Admiral.
 - H. was blind in one eye, but still able to easily judge distances while racing.
 - J. worked harder than other jockeys.
17. As used in line 41, the phrase “pull of fate” most nearly means:
- A. to pull one over.
 - B. an unconventional team.
 - C. a powerful connection.
 - D. a fear of the future.
18. According to the second paragraph (lines 13 – 19), Seabiscuit:
- F. won an impressive number of races at the beginning of his career.
 - G. was whipped if he was not in the lead in every race.
 - H. won so frequently that he often broke other colts' spirits.
 - J. was used to build the confidence of other horses.
19. According to the passage, who rode Seabiscuit in the famous match race against War Admiral?
- A. George Woolf.
 - B. Red Pollard.
 - C. Tom Smith.
 - D. Franklin D. Roosevelt.
20. The narrator's statement that Tom Smith “needed to help Seabiscuit recover from the abuse he had endured” (lines 23 – 25) suggests that Tom Smith is:
- F. an abusive trainer.
 - G. a caring trainer.
 - H. a demanding trainer.
 - J. an average trainer.

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Passage III

HUMANITIES: The article “Art from the Masters” is from *The Journal of Fine Art*.

Aside from a love of art, what do I and countless unknown art students have in common with the masters of classical and modern art, such as Picasso, Turner, Manet, and Degas? We all went to class with the great master painters of the Renaissance and other early periods. How? By sitting in the magnificent galleries of the famous art museum, the Louvre, and copying the work of earlier artists.

In my last year of art school, back home in Aurora, Illinois, my faculty advisor, Ms. Roosevelt, told me, “You have tremendous talent. It gives you outstanding potential. Now it’s time to push yourself.” I was flattered and discomfited at the same time. I thought I was always stretching to be better.

When I asked how, Ms. Roosevelt said something I will never forget. She answered, “Cézanne said ‘The Louvre is the book where we learn to read.’ That’s where you should go next.”

Ever since the Louvre opened in 1793, artists have been invited to improve their technique by copying the masterpieces on the walls. Shortly after the open-door policy was instituted, though, the galleries were so crowded that the museum had to restrict access. Today, copying is allowed only from nine in the morning through 1:30 in the afternoon from September through June, except Tuesdays, Sundays, and holidays. Of course, that still leaves a lot of time to spend with spectacular artworks from all historical periods and learn composition and color from many of the greatest painters who have ever lived. Besides, the hours let me earn a living as a waitress.

So, just 24 years old and with all the money I saved during two post-college years of diligent work, I flew to Paris to become a copyist. The procedure wasn’t complicated at

at all. I had to provide a photocopy of my passport along with a letter from the U.S. embassy and a simple form showing the date I wanted to begin and the painting I wanted to copy. I applied to copy Goya’s *Young Woman with a Fan*. My permit was good for three months, and the Louvre provided me with an easel and a stool.

From the very start I felt as though I would burst with joy. Every day, thousands of people came into the magnificent museum, and many stopped to speak with me. The interplay was as stimulating to me as an audience is to a performing musician or an actor on stage. For example, one woman from Germany thanked me as she left. After I described what I was trying to do with my copy, she said, “You have given me a new appreciation for this beautiful painting.”

I thanked her in turn. By describing my objectives, I realized I was analyzing the way Goya did his work, how he combined light and dark and used brushstrokes to produce the masterpiece I was privileged to copy.

The sense of wonder I felt after my first copy in the Louvre has not diminished in the 18 years I have worked as a copyist, nor has the magic of the relationships I develop with museum patrons, other copyists, museum staff, and the artworks changed. Even now, in my 40s, when I begin to see a master’s painting coming to life on my canvas, I very often begin to cry.

21. In paragraph four (lines 22 – 35) the main point is that:

- A. the newly restricted hours allowed the narrator to be a waitress and study art.
- B. from September through June, artists can no longer visit the Louvre to copy art.
- C. despite fewer copying hours, the Louvre remains a good place to see and copy great art.
- D. in the Louvre, there are spectacular artworks from all historical periods.

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22. As used in line 63, the phrase “has not diminished” most nearly means:
- F. did not increase.
 - G. did not remain the same.
 - H. did not develop.
 - J. did not weaken.
23. As used in line 68, the phrase “coming to life” most nearly means:
- A. being replicated.
 - B. calling out.
 - C. changing shape.
 - D. fading away.
24. According to paragraph five (lines 36 – 46) the narrator:
- F. had to go through a complicated application process to become a copyist.
 - G. decided to drop out of art school to become a copyist.
 - H. flew to Paris to be a copyist even though she hadn’t saved money.
 - J. obtained the documents she needed to be a copyist
25. If the passage’s last paragraph (lines 62 – 69) were to be deleted, which of the following would the readers lose?
- A. The narrator no longer feels great joy while working as a copyist.
 - B. The narrator’s great appreciation for copying art has endured over time.
 - C. The narrator loves art, but she enjoys the relationships with patrons more.
 - D. The narrator was finally able to appreciate art as she entered her 40s.
26. As used in line 15, the word *discomfited* most nearly means:
- F. uncomfortable.
 - G. delighted.
 - H. enlightened.
 - J. furious.
27. Which of the following occurred BEFORE the narrator applied to copy paintings at the Louvre (lines 43-44)?
- A. The author earned a living as a waitress.
 - B. The author was instructed by her advisor to study the masterpieces in person.
 - C. The Louvre did away with restricted access to allow artists more opportunities to copy work in the museum.
 - D. The author spoke with a German woman about her work as a copyist.
28. According to the passage, the narrator was similar to Picasso because:
- F. they both grew to be talented and famous artists.
 - G. they were both influenced by copying master painters from The Renaissance.
 - H. they both learned on their own, without the help of others.
 - J. they were both told by their teachers that they had tremendous talent.
29. As used in line 50, the word *interplay* most nearly means:
- A. teamwork.
 - B. magnificence.
 - C. conversation.
 - D. unification.
30. According to the passage, Ms. Roosevelt, the narrator’s faculty advisor, does all of the following, EXCEPT:
- F. acknowledge the narrator’s tremendous talent.
 - G. tell the narrator to study art at the Louvre.
 - H. suggest that the narrator read a book called *The Louvre*.
 - J. encourage the narrator to further develop her potential.

END OF TEST 3
STOP! DO NOT TURN THE PAGE UNTIL TOLD TO DO SO.
DO NOT RETURN TO A PREVIOUS TEST

TEST 4: SCIENCE TEST
30 Minutes—28 Questions

DIRECTIONS: There are a total of six passages on this test, each followed by a series of questions. After reading a passage, choose the best answer for each question and fill in the corresponding circle on your answer sheet. You can refer back to the passage as often as needed.

Passage I

Gas exchange is critical to maintaining living systems. The most common gases exchanged in living systems are oxygen (O₂) and carbon dioxide (CO₂). Fish, like humans, have a respiratory cycle that involves breathing in O₂ and breathing out CO₂. All fish use their gills to absorb O₂ and to release CO₂. Some fish, however, are also able to absorb O₂ and release CO₂ through their skin.

An experiment was performed to investigate the effect of temperature on gas exchange rates through gills and skin. One hundred *Pandaka pygmaea* fish were placed in a tank that simulated their natural habitat. The tank was equipped with a heater to vary the temperature and an infrared sensor to measure gas exchange. Light intensity, pH levels, and salinity were held constant throughout the experiment. O₂ and CO₂ exchange rates were measured at five different temperatures, as shown in Tables 1 and 2.

Table 1		
Temperature (°C)	O ₂ Absorbed (mol/hr)	
	Gills	Skin
0	14.2	4.2
5	16.7	6.8
10	18.9	8.3
15	20.3	10.6
20	23.5	11.4

Table 2		
Temperature (°C)	CO ₂ Released (mol/hr)	
	Gills	Skin
0	7.3	1.3
5	9.2	2.4
10	11.5	3.7
15	13.7	4.9
20	16.4	4.2

GO ON TO THE NEXT PAGE.

1. Which variable was directly manipulated in the experiment?
 - A. Temperature
 - B. Amount of O₂ absorbed
 - C. Amount of CO₂ released
 - D. Moles of O₂

2. According to Table 1, how many total moles of O₂ are absorbed per hour by these fish at 15°C?
 - F. 10.6 moles
 - G. 18.6 moles
 - H. 20.3 moles
 - J. 30.9 moles

3. For the scientist to determine how temperature affects gas exchange, which of the following had to be true?
 - A. A thermometer had to be used to measure temperature.
 - B. A thermometer had to be used to measure salinity levels.
 - C. An infrared sensor had to be used to measure temperature.
 - D. An infrared sensor had to be used to measure salinity levels.

4. Which of the following information is NOT reported in Table 2?
 - F. Temperature
 - G. CO₂ released by the gills
 - H. CO₂ released by the skin
 - J. O₂ absorbed by the skin

Passage II

The Insurance Institute for Highway Safety regularly monitors motor vehicle related fatalities in order to improve their programs that promote safe driving habits. The following data are from the Fatality Analysis Reporting System (FARS). Figure 1 shows the number of teen motor vehicle related fatalities in the United States per year from 1975 to 2005. Figure 2 shows the distribution of all motor vehicle related fatalities involving teens by percentage.

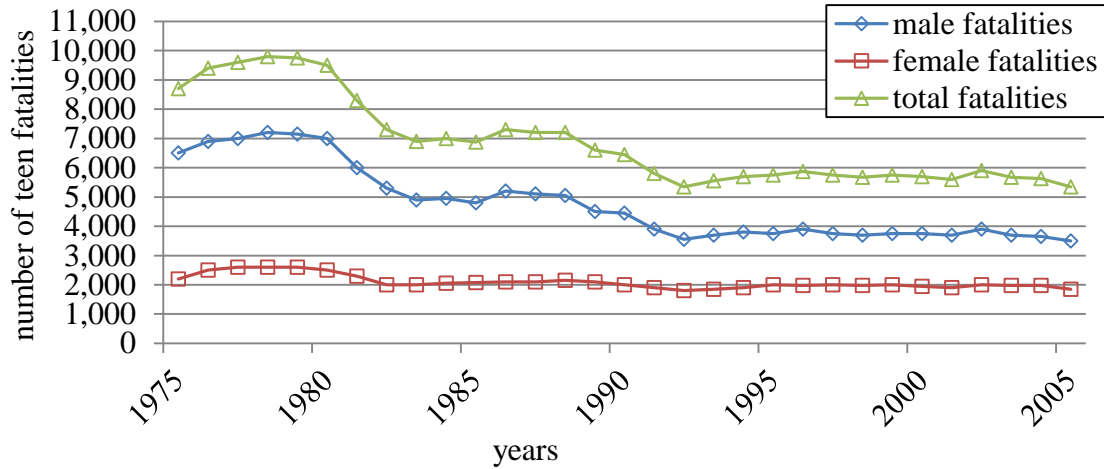


Figure 1

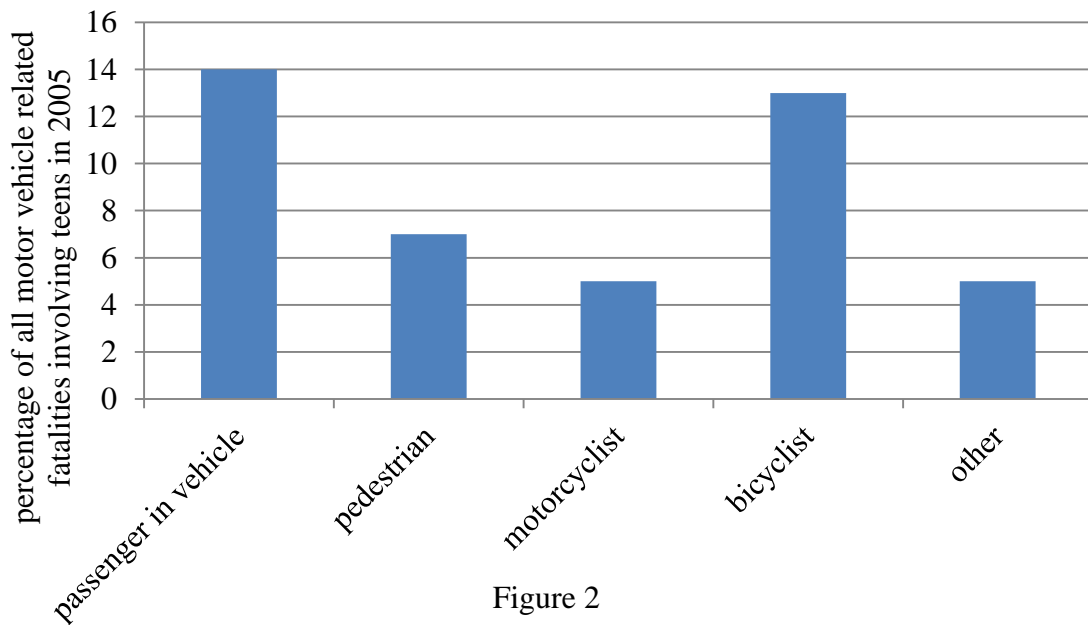


Figure 2

5. Which of the following information is provided on the vertical axis of Figure 1?
- A. Percentage of all motor vehicle fatalities involving teens in 2005
 - B. Year
 - C. Number of teen fatalities
 - D. Female fatalities
6. According to Figure 2, what percentages of pedestrians and bicyclists died in motor vehicle related accidents, respectively?
- F. 13% and 7%
 - G. 14% and 13%
 - H. 7% and 14%
 - J. 7% and 13%
7. According to Figure 1, between the years 1980 and 1985, as the years increased, the total fatalities:
- A. Increased
 - B. Decreased
 - C. Stayed constant
 - D. Increased then decreased
8. Which of the following conclusions is NOT consistent with the data in Figure 1?
- F. The number of male fatalities is greater than the number of female fatalities.
 - G. The number of female fatalities is approximately constant from 2000 to 2005.
 - H. The total number of fatalities follows the trend for the number of female fatalities.
 - J. The total number of fatalities follows the trend for the number of male fatalities.

Passage III

A physics class performed three experiments to measure the effect of the *coefficient of friction* on a non-powered toy car rolling down an inclined plane as shown in Figure 1. Each study was conducted using a ramp with the same angle of incline. However, different surface materials were used to alter each ramp's coefficient of friction.

Study 1

Students placed a non-powered toy car on a 2-meter smooth ramp made of metal. They set the ramp to an incline of 15° and measured the time it took the toy car to roll down the ramp. Students then calculated the velocity of the toy car and determined the average velocity using four trials.

Table 1		
Coefficient of friction: 0.10		
Trial	Time (sec)	Velocity (m/s)
1	1.43	1.40
2	1.42	1.42
3	1.41	1.42
4	1.44	1.39
Average		1.41

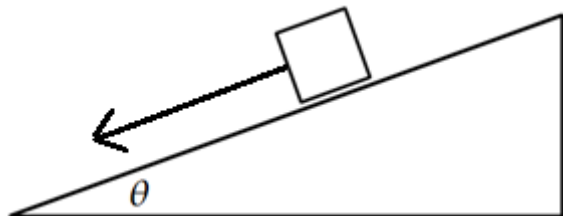


Figure 1

Study 2

The students repeated the procedure from Study 1 using a smooth, 2-meter ramp made of wood. Their results are given in Table 2.

Table 2		
Coefficient of friction: 0.50		
Trial	Time (sec)	Velocity (m/s)
1	1.56	1.28
2	1.61	1.24
3	1.62	1.23
4	1.59	1.26
Average		1.25

Study 3

The students repeated the procedure from Study 1 using a smooth, 2-meter ramp made of wood covered with 120-grit sandpaper. Their results are given in Table 3.

Table 3		
Coefficient of friction: 1.10		
Trial	Time (sec)	Velocity (m/s)
1	1.66	1.20
2	1.71	1.17
3	1.67	1.20
4	1.68	1.19
Average		1.19

9. Which of the following is the best explanation for why the students performed all three studies using the same incline angle for the ramp?
- A. The incline angle could affect the surface material of the ramp.
 - B. The incline angle could affect the accuracy of the stopwatch.
 - C. The incline angle could affect the velocity of the car.
 - D. The incline angle could affect the length of the ramp.
10. In Studies 1-3, what is the most likely reason the students used the same non-powered toy car?
- F. To ensure friction was the only variable affecting velocity.
 - G. To ensure the car could not roll up the ramp.
 - H. To ensure the angle of the ramp was the only variable that affected velocity.
 - J. To ensure the time is the same for every trial.
11. Based on the information in Table 1, which of the following statements best describes the results for Trial 4?
- A. The time was 1.68 sec while the velocity was 1.19 m/s.
 - B. The time was 1.44 sec while the velocity was 1.39 m/s.
 - C. The time was 1.39 sec while the velocity was 1.44 m/s.
 - D. The time was 1.19 sec while the velocity was 1.68 m/s.
12. Students most likely performed multiple trials for each surface type:
- F. because an average with more samples is more reliable.
 - G. because an average with fewer samples is more reliable.
 - H. because sample size has no effect on the reliability of an average.
 - J. because the velocity of the car will increase with more samples.
13. Which of the following statements is consistent with the information and results in Study 1?
- A. The longest time corresponds to the fastest velocity.
 - B. The largest angle of incline corresponds to the slowest velocity.
 - C. During each trial, the car took approximately the same amount of time to roll down the ramp.
 - D. Decreasing the ramp length increases the distance the car can travel.

Passage IV

Two paleontologists discuss the causes of the dinosaur extinction.

Paleontologist 1

The dinosaur extinction was caused by a long sequence of large, volcanic eruptions that occurred 65 million years ago. The continuous ash cloud expelled into the air by these eruptions blocked a portion of sunlight from reaching the Earth's surface, causing worldwide climatic cooling.

Due to the extended period of time in which the light was blocked out, roughly 250 years, most of the Earth's plant species died. The amount of light blocked by the volcanic ash and its duration are represented in Figure 1.

The loss of these plants slowly eliminated the food supply for the plant-eating dinosaurs, resulting in their eventual deaths. Without the plant-eating dinosaurs to prey upon, the meat-eating dinosaurs slowly died out as well.

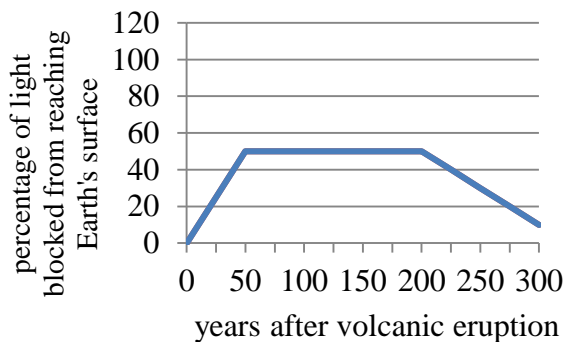


Figure 1

Paleontologist 2

The extinction of dinosaurs was caused by a large meteor striking Earth around 65 million years ago. The impact sent one large cloud of dust and toxic gas into the atmosphere, blocking nearly all of sunlight from reaching the Earth's surface and poisoning many of the Earth's organisms. The amount of light blocked and its duration are represented below in Figure 2.

The dinosaurs died off within a very short period of time, ruling out the possibility that their extinction was due to volcanic eruptions.

This rapid, nearly complete reduction in light, while only lasting for 40 years, wiped out a majority of the plant and animal species on our planet.

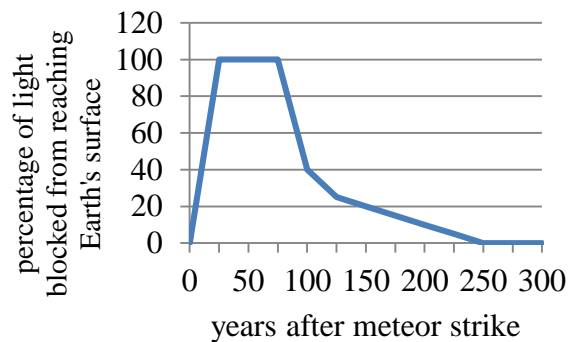


Figure 2

- 14.** Which of the following ideas about extinction was implied by Paleontologist 1?
- F.** Extinction occurs when ash falls on plant species.
 - G.** Extinction is related to an extended lack of light.
 - H.** Extinction is unrelated to climatic cooling.
 - J.** Extinction is related to short periods of time without light.
- 15.** According to Figure 2, how does the percentage of light blocked when the meteor struck (at year 0) compare to the percentage at the end of the 250-year period? The percentage of light blocked at the end of the 250-year period was:
- A.** higher than when the meteor struck.
 - B.** lower than when the meteor struck.
 - C.** equal to when the meteor struck.
 - D.** equal to half of the light blocked when the meteor struck.
- 16.** Paleontologist 2 makes the assumption that:
- F.** both volcanic eruptions and meteor strikes played an important role in extinction.
 - G.** extinction occurred over a long period of time.
 - H.** extinction occurred over a short period of time.
 - J.** volcanic ash clouds caused dinosaur extinction.
- 17.** According to Figure 1, between 150 years and 300 years after the volcanic eruption, the percentage of light blocked:
- A.** stayed constant, then increased
 - B.** stayed constant, then decreased
 - C.** increased, then stayed constant
 - D.** decreased, then stayed constant
- 18.** According to Figure 2, what percentage of light is blocked after 50 years and 150 years, respectively?
- F.** 0% and 100%
 - G.** 20% and 100%
 - H.** 50% and 50%
 - J.** 100% and 20%
- 19.** If Paleontologist 1 is correct, which of the following statements would be true?
- A.** Dinosaurs died out as a result of poisonous gases.
 - B.** A large meteor strike caused the dinosaurs to die out.
 - C.** Over 60% of light blocked was blocked due to a meteor strike.
 - D.** Most plants died out as a result of a long period of low sunlight.

Passage V

Students wish to identify an unknown material. They obtain the room temperature densities for 8 known materials. These data are presented in Table 1.

Students measured the mass and the volume of four solid cubes made of the unknown material. The mass was measured using a digital balance. The volume was determined by measuring the length of the sides of each cube and using the following formula:

$$\text{volume} = \text{length} \times \text{width} \times \text{height}$$

The mass and volume data are summarized in Figure 1. Using the data from the graph and the following formula for density, students determined the density of the unknown material to be 2.0 g/cm^3 .

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

Material	Density (g/cm^3)
aluminum	2.0
copper	8.9
iron	7.9
zinc	7.1
acetone	0.8
coconut oil	0.9
mercury	13.6
water	1.0

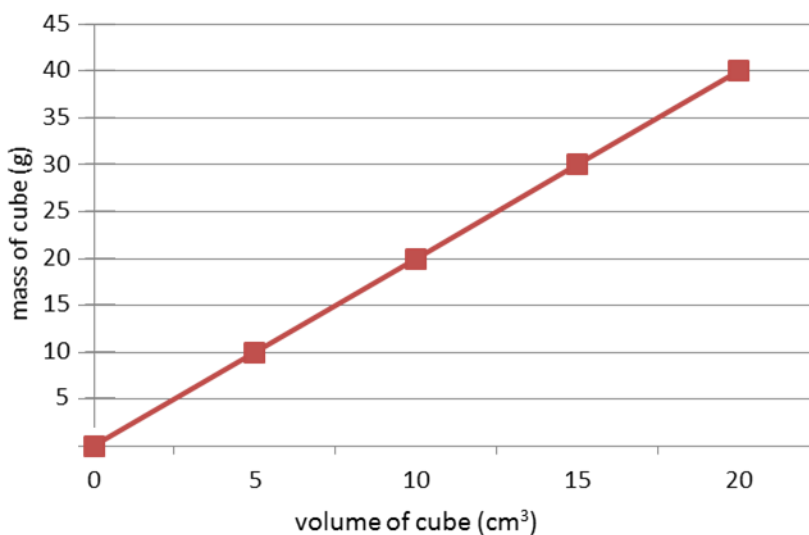


Figure 1

20. According to table 1, the variable that is directly manipulated is the:

- F. mass.
- G. volume.
- H. density.
- J. material.

21. What are the units used to measure the volume of the cube in Figure 1?

- A. g
- B. g/cm
- C. cm^3
- D. g/cm^3

22. According to Table 1, how much more dense is iron than aluminum?

- F. 2.0 g/cm^3
- G. 5.9 g/cm^3
- H. 7.9 g/cm^3
- J. 9.9 g/cm^3

23. What are the densities of copper and mercury, respectively?

- A. 2.0 g/cm^3 and 0.8 g/cm^3
- B. 7.9 g/cm^3 and 13.6 g/cm^3
- C. 8.9 g/cm^3 and 7.1 g/cm^3
- D. 8.9 g/cm^3 and 13.6 g/cm^3

Passage VI

A series of three experiments is completed with the set-up shown in Figure 1. A pendulum ball is pulled back to an angle, θ . This is the *angle of release* and is measured in degrees. The *period* of the pendulum is the time it takes for one complete back and forth swing of the pendulum.

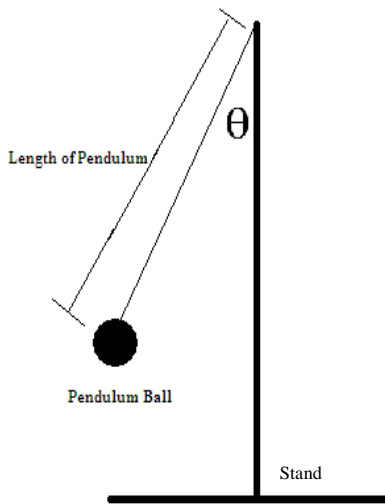


Figure 1

Experiment 1

The scientist varied the length of the pendulum and measured the period.

Mass = 1 kg
Angle of Release = 5°

Table 1	
Length (m)	Period (sec)
0.5	1.5
1.0	2.1
1.5	2.5
2.0	2.9

Experiment 2

The scientist kept the length of the pendulum constant and varied the mass of the pendulum ball. The scientist measured the period.

Length = 2 m
Angle of Release = 5°

Table 2	
Mass (kg)	Period (sec)
0.5	2.0
1.0	2.1
2.0	2.0
3.0	2.0

Experiment 3

The scientist kept the length of the pendulum and the mass of the pendulum ball constant and varied the angle of release. The scientist measured the period.

Mass = 1 kg
Length = 1 m

Table 3	
Initial Angle ($^\circ$)	Period (sec)
5	2.1
20	2.1
45	2.9
80	3.4

- 24.** While collecting data, which of the following tools would have been used in all three experiments?
- F.** Meter stick, because the scientist measured the period.
 - G.** Meter stick, because the scientist measured the angle of release.
 - H.** Stopwatch, because the scientist measured the period.
 - J.** Stopwatch, because the scientist measured the angle of release.
- 25.** The scientist most likely assumed which of the following when the experiment was designed?
- A.** Length of the pendulum has no effect on period.
 - B.** Period is affected by more than one variable.
 - C.** Velocity is affected by period.
 - D.** The length of the pendulum is affected by the mass of the pendulum ball.
- 26.** According to Experiment 3, how much longer was the period when the initial angle was 80° compared to when the angle was 20° ?
- F.** 0.0 sec
 - G.** 0.5 sec
 - H.** 0.8 sec
 - J.** 1.3 sec
- 27.** Which of the following conclusions is consistent with the results of Experiment 1?
- A.** The longest length has the smallest period.
 - B.** The longest length has the largest period.
 - C.** The largest mass has the smallest period.
 - D.** The largest mass has the largest period.
- 28.** Based on the data in Experiment 1, as the length of the pendulum increases from 1.0 meter to 2.0 meters, the period of the pendulum:
- F.** increases.
 - G.** decreases.
 - H.** remains constant.
 - J.** varies with no general trend.