ENGLISH PRACTICE

DIRECTIONS: In the passage that follows, certain words and phrases are underlined and numbered. In the right-hand column, you will find alternatives for the underlined part. In most cases, you are to choose the one that best expresses the idea, makes the statement appropriate for standard written English, or is worded most consistently with the style and tone of the passage as a whole. If you think the original version is best, choose “NO CHANGE.” In some cases you will find in the right-hand column a question about the underlined part. You are to choose the best answer to the question.

PASSAGE I

Eureka Springs

Eureka Springs is the kind of vacation spot that
induces you to escape for a week, a month, or an
entire summer. Nestled in the hilly country of Carroll
County, Arkansas, it's accessible only by narrow,
winding roads: an exhausting drive, especially if you're
prone to getting car sick. But once your there, it's like
stepping into another world. In some ways, the town
feels oddly untouched by time. Its historic streets are
invitingly walkable, filled with charming boutiques,
cozy restaurants, casual bars, and vintage hotels.

Shopkeepers are with their customers striking up
friendly conversations—especially if you visit during
the off-season, as I did this past January.

1. A. NO CHANGE
   B. beckons
   C. provokes
   D. incites

2. F. NO CHANGE
   G. you're there, its
   H. your their, it's
   J. you're there, it's

3. A. NO CHANGE
   B. striking up, friendly, conversations with
      their customers
   C. friendly with striking up their
      conversations with customers
   D. friendly, striking up conversations with
      their customers
An unseasonable warm afternoon was the perfect time to walk around and enjoy the scenery. The weather was perfect, and there were no troublesome wasps or mosquitoes to ruin the mood!

A quartet of street musicians had gathered on the sidewalk, where they sang and played their banjos and guitars, filling the air with pleasant tunes. My traveling companion and I—along with our little dog—stepped into a fun shop specializing exclusively in condiments, especially hot sauces.

Excited in having company, the eccentric proprietor buzzed around the restaurant, chatting happily and served up tasty morsels for us to sample, like a candied jalapeno that was both spicy and sweet. The dog got a cracker. After buying a jar of spicy olives, we bid the shopkeeper an affectionate goodbye, and continued along.

We stopped, as we walked to read the plaques mounted along the sidewalk. The brass plaques tell the story of a resort town with a long history, dating back to the 1880s and 1890s.
Filled with natural springs bubble from the hillside, the town provided a relaxing holiday spot and trendy health spas to wealthy vacationers of the Victorian era. Eureka Spring's many historic homes and buildings are a monument to this Victorian past. Hours we spent wandering around looking at these beautiful homes, decorated with intricate and detailed trim, and painted in gorgeous pastels like yellow, pink, purple, and green.

We did not stay in one of these Victorian bed and breakfasts. Indeed, our chosen lodging was a cabin in a forest, overlooking a lake.

It also has a historic past, being one of half-a-dozen built by the famous WPA (Work Projects Administration) in the 1930s. Sponsored by the government during the days of the Great Depression, many communities benefited, and projects were completed by the WPA. The WPA built to such high standards, many of the buildings they completed are still in perfect condition—like the charming log cabin where I slept, nestled on the boundary between woods and lake.
MATHEMATICS PRACTICE

DIRECTIONS: Solve each problem, choose the correct answer, and then fill in the corresponding oval on your answer document.

Do not linger over problems that take too much time. Solve as many as you can; then return to the others in the time you have left for this test.

You are permitted to use a calculator on this test. You may use your calculator for any problems you choose, but some problems may best be done without using a calculator.

Note: Unless otherwise stated, all of the following should be assumed:
1. Illustrative figures are NOT necessarily drawn to scale.
2. Geometric figures lie in a plane.
3. The word line indicates a straight line.
4. The word average indicates arithmetic mean.

1. The area of a square is 25 square feet. What is the perimeter of the square, in feet?
   A. 5
   B. 10
   C. 20
   D. 25
   E. 100

2. Anne has 5 shirts, 4 pairs of pants, 4 pairs of socks, and 2 hats. How many different combinations of 1 shirt, 1 pair of pants, 1 pair of socks, and 1 hat can she wear?
   F. 2
   G. 4
   H. 15
   J. 80
   K. 160

3. For two consecutive integers, the sum of the smaller and quadruple the larger is 79. What are the two integers?
   A. 14, 15
   B. 15, 16
   C. 16, 17
   D. 19, 20
   E. 39, 40

4. To visit the local aquarium, members pay $13 per ticket while nonmembers pay $15 per ticket. What is the total amount, in dollars, from the sale of 55 member tickets and \( n \) nonmember tickets?
   F. \( n + 55 \)
   G. \( (15 + 13)n \)
   H. \( 15(n + 13) \)
   J. \( 15(n + 55) \)
   K. \( 15n + 13(55) \)
5. If $13(x - 7) = -11$ then $x = ?$  

A. $\frac{102}{13}$  
B. $\frac{18}{13}$  
C. $\frac{11}{13}$  
D. $\frac{4}{13}$  
E. $\frac{80}{13}$

6. Eric’s basketball team, the Admirals, has the highest score average in its history after 5 games in which the team scored 66, 85, 73, 81, and 55 points. How many points must the Admirals score in the next game to maintain this average?  

F. 60  
G. 68  
H. 70  
J. 72  
K. 82

7. $5x^4 \cdot 8x^6$ is equal to:  

A. $13x^2$  
B. $13x^{10}$  
C. $13x^{24}$  
D. $40x^{10}$  
E. $40x^{24}$

8. On even ground, a basketball goal 15 feet tall casts a 5 foot long shadow. A tree on the same level ground casts a 15 foot long shadow. How many feet tall is the tree?  

F. 5  
G. 10  
H. 15  
J. 25  
K. 45

9. A school organizes a field trip for a class of 8 students. The school will rent a bus, toward which each student will contribute $15. On the day of the trip, 2 students cancel, and the others have to pay equally for the bus. How much does each remaining student pay?  

A. $10.00$  
B. $13.13$  
C. $16.83$  
D. $20.00$  
E. $30.00$
The summer I was twelve came to be known as the “Summer of the Sandwich,” at least between my brother and me. He was ten, just old enough to be interested in sandwiches.

We lived in the city. It was hot and muggy and sweaty during the summertime, especially inside the dim confines of our cramped apartment. Our mother was tired of listening to our arguments and kept sending us off to the park. It was hot there, too, the air flat and moist and still, like underneath the bed. We’d throw the Frisbee around a couple times before collapsing in the shade, sluggish and annoyed.

Our only hope for enjoying the summer lay in De Luca’s, the deli three blocks north and four blocks west. De Luca’s specialized in sandwiches; the big chalkboard behind the counter listed three dozen different kinds, maybe more. The sandwiches were named after friends and family members, old TV shows, puns and plays on words. De Luca’s also served soft drinks in slim glass bottles, which made the plain old soda seem more sophisticated, and very cold lemonade that was both mouth-numbingly sour and deliciously sweet. Best of all, they had air conditioning.

Tommy De Luca, the deli owner, still sliced the ham, fried the eggs, and sautéed the onions behind the counter listed three dozen different kinds, maybe more. If a customer could invent their own completely unique, delicious sandwich – along with the clever, play-on-words name that would sum up all that sandwich offered to the world – and if Tommy De Luca would be impressed; we were sure of it. We couldn’t decide between the names ‘Green-Eyed Monster’ or ‘Cheesy Granny.’ We felt both were good. We created a beautiful specimen, complete with toothpick, and carried it to De Luca’s.

It was the hot, boring part of the afternoon, between lunch and dinner, when no one was particularly hungry. Tommy sat in the dining area, reading a newspaper. He looked with mild interest at our sandwich, then listened to our pitch. We held our breath as he took a bite – slowly chewed – nodded – took another bite – nodded again.

“It’s pretty good,” he said. “Pretty good. Not too bad, kids. But, I don’t know – it just doesn’t scream De Luca’s to me. Know what I mean?”

We wandered home, disappointed but determined. My brother kept harping on about how we should have tried the meatball-grilled cheese he’d suggested. Secretly, I agreed, although I steadfastly refused to admit it. Anyway, this was no time for blame or regrets. It was time to go back to the cutting board. It was time to invent a better sandwich.
1. The point of view from which the passage is told is best described as that of:
   A. a twelve year old describing the events of his summer.
   B. an adult reminiscing about a summer when he was young.
   C. a deli owner explaining how he gets his ideas.
   D. a parent who wants to encourage his children's hobby.

2. According to the passage, the children wanted to create a sandwich because:
   F. their mother wanted them to find a way to keep busy.
   G. they would be able to eat half-price at De Luca's.
   H. Tommy De Luca issued a special challenge to them.
   J. they wanted to win the respect of the other customers.

3. According to the passage, which condition did the winning sandwich NOT need to fulfill?
   A. Unique combination of ingredients
   B. Chosen by Tommy De Luca
   C. Apt and witty name
   D. A type of classic hoagie

4. It can most reasonably be inferred from the passage that "peanut butter and pickles" was a sandwich the brothers:
   F. considered, but immediately decided against.
   G. liked, but Tommy De Luca did not.
   H. made, but were unhappy with the results.
   J. would have made, but did not have the ingredients.

5. The main purpose of the last paragraph is to:
   A. demonstrate the siblings' sense of disappointment.
   B. indicate that the siblings should have pursued another idea.
   C. show that the siblings' resolve had not been broken.
   D. explain why this incident made an impact on the narrator.

6. As it is used in lines 26-27, the word *connoisseur* most nearly means:
   F. expert.
   G. chef.
   H. inventor.
   J. businessman.

7. The passage makes clear that the brothers liked eating at De Luca's deli because:
   A. it was close to the park and had delicious food.
   B. it offered air conditioning along with food.
   C. Tommy De Luca was a neighborhood friend.
   D. it led to their journey of innovation.

8. It can reasonably be inferred from the passage that the parents' discomfort with the contest was most likely due to:
   F. the brothers' constant arguments about sandwiches.
   G. the mess the boys were making in the kitchen.
   H. the boys spending too much time indoors.
   J. the potential for the boys to face great disappointment.

9. The passage implies that which of the following is most likely to result from De Luca's decision?
   A. The parents will put an end to the sandwich project.
   B. The boys will take a more methodical and scientific approach.
   C. The boys will return to the process of brainstorming new creations.
   D. The boys will go shopping to obtain new ingredients.

10. According to the passage, the boys used the college-ruled notebook in order to:
    F. organize all of their recipes.
    G. reference De Luca's existing sandwiches.
    H. keep track of their shopping expenditures.
    J. record the results of their experiments.
When a non-native organism spreads to a new ecosystem, it is called an invasive species. Originally from the rainforest of South America, *Solenopsis invicta*, the red fire ant, is a type of invasive species that builds nests in ecosystems with particular climatic conditions (including temperature and moisture levels), referred to here as Condition Set A. When ants of this species colonize, they form a nest with a diameter that is about 8 times its height. Figure 1 shows the number of ants per colony for a range of ant nest diameters.

Figure 2 shows the average distance between equally-sized ant nests found in the rainforest. Figure 3 shows the percent of the deciduous forest, alpine, and savanna regions that is covered by ant nests of various heights.
1. Suppose that 5,055 ants are found in a particular nest, under climatic Conditions A, in the rainforest. According to Figure 1, the diameter of the ant nest is most likely closest to which of the following?
   A. 16 cm
   B. 24 cm
   C. 32 cm
   D. 48 cm

2. According to Figure 2, for progressively larger ant nests, the average distance between neighboring nests:
   F. increases only.
   G. decreases only.
   H. varies, but with no general trend.
   J. remains the same.

3. According to Figure 3, for any given range of ant nest heights, the percent of the alpine region that is covered by ant nests is:
   A. less than that of deciduous forests and savannas.
   B. less than that of deciduous forests but greater than that of savannas.
   C. greater than that of deciduous forests and savannas.
   D. greater than that of deciduous forests but less than that of savannas.

4. Suppose that under climatic Condition Set A, an ant nest with a height of 4 cm is found in the rainforest. Based on Figure 1 and other information provided, the number of ants in the colony is most likely closest to which of the following?
   F. 1,000 ants
   G. 2,000 ants
   H. 10,000 ants
   J. 20,000 ants

5. Assume that an ant nest with a diameter of 64 cm was found in the rainforest 45 meters north of a field station. Also, assume that another 64-cm ant nest is located directly south of the field station. If the distance between these two ant nests is equal to the average distance between neighboring ant nests as given by Figure 2, the southern 64-cm ant nest should be located approximately:
   A. 45 meters south of the field station.
   B. 55 meters south of the field station.
   C. 100 meters south of the field station.
   D. 145 meters south of the field station.
# Answers

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