

Reading Comprehension questions

This test measures your ability to understand what you read. For some items you will have a short passage to read, followed by a question about it—for example, a question about the main idea of the passage or the meaning of a word in it. For other items you will be given two sentences and then asked about the relationship between them.

1. Myths are stories, the products of fertile imagination, sometimes simple, often containing profound truths. They are not meant to be taken too literally. Details may sometimes appear childish, but most myths express a culture's most serious beliefs about human beings, eternity, and God.

The main idea of this passage is that myths

- A. are created primarily to entertain young children.
- B. are purposely written for the reader who lacks imagination.
- C. provide the reader with a means of escape from reality.
- D. illustrate the values that are considered important to a society.

2. The ultimate source of energy for all plants and animals is sunlight. But the sun's energy can be harnessed by plants, through photosynthesis, and stored in molecules of carbohydrates. When animals eat these enzymes, large amounts of energy become available. Animals immediately convert this energy into molecules of high-energy ATP (adenosine triphosphate)—the universal currency of energy in living things. Excluding only the very first stages in carbohydrate breakdown, which are called glycolysis, the entire complicated process of energy transfer to ATP takes place within the mitochondria.

Glycolysis refers to

- A. the initial stages of carbohydrate breakdown.
- B. the process of plants producing oxygen and carbohydrates.
- C. the production of ATP.
- D. the production of body heat which occurs in the mitochondria.

3. There are two types of pottery that I do. There is production pottery—mugs, tableware, the kinds of things that sell easily. These pay for my time to do the other work, which is more creative and satisfies my needs as an artist.

The author of this passage implies that

- A. artists have a tendency to waste valuable time.
- B. creativity and mass production are incompatible.
- C. most people do not appreciate good art.
- D. pottery is not produced by creative artists.

4. The Midwest is experiencing its worst drought in fifteen years.

Corn and soybean prices are expected to be very high this year.

What does the second sentence do?

- A. It restates the idea found in the first.
- B. It states an effect.
- C. It gives an example.
- D. It analyzes the statement made in the first.

5. In the words of Thomas DeQuincey, “It is notorious that the memory strengthens as you lay burdens upon it.” If, like most people, you have trouble recalling the names of those you have just met, try this: the next time you are introduced, plan to remember the names. Say to yourself, “I’ll listen carefully; I’ll repeat each person’s name to be sure I’ve got it, and I will remember.” You’ll discover how effective this technique is and probably recall those names for the rest of your life.

The main idea of the paragraph maintains that the memory

- A. always operates at peak efficiency.
- B. breaks down under great strain.
- C. improves if it is used often.
- D. becomes unreliable if it tires.

Sentence Skills questions

This test measures your understanding of sentence structure—how sentences are put together and what makes a sentence complete and clear.

In the first four sample questions, you will be asked to select the best version of the underlined part of the sentence. The first choice is the same as the original sentence. If you think that the original sentence is best, choose the first answer.

1. The baby was obviously getting too hot, then Sam did what he could to cool her.
 - A. hot, then Sam did
 - B. hot, Sam did
 - C. hot; Sam, therefore, did
 - D. hot; Sam, trying to do

2. She hoped to find a new job. One that would let her earn money during the school year.
 - A. job. One that
 - B. job. The kind that
 - C. job, one that
 - D. job, so that it

3. Knocked sideways, the statue looked as if it would fall.
 - A. Knocked sideways, the statue looked
 - B. The statue was knocked sideways, looked
 - C. The statue looked knocked sideways
 - D. The statue, looking knocked sideways,

4. To walk, biking, and driving are Pat's favorite ways of getting around.
 - A. To walk, biking, and driving
 - B. Walking, biking, and driving
 - C. To walk, biking, and to drive
 - D. To walk, to bike, and also driving

In the next four sample questions, you will be asked to rewrite a sentence. Your new sentence should be clear and grammatical and should have essentially the same meaning as the original sentence.

5. In his songs, Roderick Smith makes melody and lyrics intricately intertwine.

Rewrite, beginning with *Melody and lyrics* . . .

Your new sentence will include

- A. Roderick Smith has
- B. make Roderick Smith's
- C. in Roderick Smith's
- D. does Roderick Smith

6. It is easy to carry solid objects without spilling them, but the same cannot be said of liquids.

Rewrite, beginning with *Unlike liquids*, . . .

The next words will be

- A. it is easy to
- B. we can easily
- C. solid objects can easily be
- D. solid objects are easy to be

7. Excited children ran toward the loud music, and they told others about the ice cream truck outside.

Rewrite, beginning with *The excited children, who had run toward the loud* . . .

The next words will be

- A. music, they told
- B. music, told
- C. music, telling
- D. music and had told

8. Chris heard no unusual noises when he listened in the park.

Rewrite, beginning with *Listening in the park*, . . .

The next words will be

- A. no unusual noises could be heard
- B. then Chris heard no unusual noises
- C. and hearing no unusual noises
- D. Chris heard no unusual noises

Arithmetic questions

Solve the following problems without using a calculator.

1. A soccer team played 160 games and won 65 percent of them. How many games did they win?

- A. 94
- B. 104
- C. 114
- D. 124

2. The Number of Employees of Company K Who Were Involved in Accidents

	Plant X	Plant Y
Mechanics	11	30
Power Machine Operators	9	12

The table above shows the results of an industrial health survey of 10,000 people employed at Company K for more than 5 years. If 2,500 employees were surveyed in each of the four categories, which group of employees had the highest accident rate?

- A. Mechanics in plant X
- B. Mechanics in plant Y
- C. Power Machine Operators in plant X
- D. Power Machine Operators in plant Y

3. $\frac{7}{20} =$

- A. 0.035
- B. 2.858
- C. 0.35
- D. 3.5

4. $7.86 \times 4.6 =$

- A. 36.156
- B. 36.216
- C. 351.56
- D. 361.56

5. Which of the following is the least?

- A. 0.105
- B. 0.501
- C. 0.015
- D. 0.15

6. The average weight for a group of 20 women is 130 pounds. If the average weight for $\frac{3}{4}$ of these women was 140 pounds, what was the average weight, in pounds, for the rest of the women?

- A. 100
- B. 110
- C. 120
- D. 135

7. All of the following are ways to write 20 percent of N except

- A. $0.20N$
- B. $\frac{20N}{100}$
- C. $\frac{1N}{5}$
- D. $20N$

8. Which of the following is closest to $\sqrt{10.5}$?

- A. 3
- B. 4
- C. 5
- D. 8

9. Three people who work full time are to work together on a project, but their total time on the project is to be equivalent to that of only one person working full time. If one of the people is budgeted for $\frac{1}{2}$ of his time to the project and a second person for $\frac{1}{3}$ of her time, what part of the third worker's time should be budgeted to the project?

A. $\frac{1}{3}$

B. $\frac{1}{4}$

C. $\frac{1}{6}$

D. $\frac{1}{8}$

Elementary Algebra questions

Solve the following problems without using a calculator.

1. $16x - 8 = ?$

- A. $8x$
- B. $8(2x - x)$
- C. $8(2x - 1)$
- D. $8(2x - 2)$

2. If a number is divided by 4 and then 3 is subtracted, the result is 0. What is the number?

- A. 12
- B. 4
- C. 3
- D. 2

3. If $x^2 - x - 6 = 0$, then x is

- A. 3 or -2
- B. -1 or 6
- C. 1 or -6
- D. 2 or -3

4. If A represents the number of apples purchased at 15 cents each and B represents the number of bananas purchased at 10 cents each, which of the following represents the total value of the purchases?

- A. $A + B$
- B. $25(A + B)$
- C. $10A + 15B$
- D. $15A + 10B$

5. $\sqrt{2} \cdot \sqrt{15} =$

- A. 17
- B. 30
- C. $\sqrt{30}$
- D. $\sqrt{17}$

6. The Greens scored twice as many points as the Yellows. If the Greens scored 28 points, how many points did the Yellows score?

A. $\frac{N}{2}$

B. $N + 2 = 28$

C. $2N = 28$

D. $N = 28 \times 2$

7. $(3x - 2y)^2 =$

A. $9x^2 - 4y^2$

B. $9x^2 + 4y^2$

C. $9x^2 + 4y^2 - 6xy$

D. $9x^2 + 4y^2 - 12xy$

College Level Mathematics questions

Solve the following problems without using a calculator.

1. If $f(x) = x^4 - x + 2$, then $f(-x) =$

- A. $x^4 - x$
- B. $x^4 + x$
- C. $x^4 - x + 2$
- D. $x^4 + x + 2$

2. The equation $x^2 + 2x - 2 = 0$ has as its roots

- A. $\sqrt{5} - 1, -\sqrt{5} - 1$
- B. $\sqrt{5} - 1, \sqrt{5} + 1$
- C. $\sqrt{3} - 1, -\sqrt{5} + 1$
- D. $\sqrt{3} - 1, \sqrt{3} + 1$
- E. $\sqrt{3} - 1, -\sqrt{3} - 1$

Answer key

Reading Comprehension

1. D
2. A
3. B
4. B
5. C

Sentence Skills

1. C
2. C
3. A
4. B
5. C
6. C
7. B
8. D

Arithmetic

1. B
2. B
3. C
4. A
5. C
6. A
7. D
8. A
9. C

Elementary Algebra

1. C
2. A
3. A
4. D
5. C
6. C
7. D

College Level Mathematics

1. D
2. E