

9. Knowledge of another language fosters greater awareness of cultural diversity among the peoples of the world.

Individuals who have foreign language skills can appreciate more readily other peoples' values and ways of life.

How are the two sentences related?

- A. They contradict each other.
- B. They present problems and solutions.
- C. They establish a contrast.
- D. They repeat the same idea.

10. Serving on a jury is an important obligation of citizenship.

Many companies allow their employees paid leaves of absence to serve on juries.

What does the second sentence do?

- A. It reinforces what is stated in the first.
- B. It explains what is stated in the first.
- C. It expands on the first.
- D. It draws a conclusion about what is stated in the first.

## WritePlacer®

This test measures your ability to write effectively, which is critical to academic success.

Your writing sample will be scored on the basis of how effectively it communicates a whole message to the readers for the stated purpose. Your score will be based on your ability to express, organize, and support your opinions and ideas, not the position you take on the essay topic. The following five characteristics of writing will be considered:

- **Focus**—The clarity with which you maintain your main idea or point of view
- **Organization**—The clarity with which you structure your response and present a logical sequence of ideas
- **Development and Support**—The extent to which you elaborate on your ideas and the extent to which you present supporting details
- **Sentence Structure**—The effectiveness of your sentence structure
- **Mechanical Conventions**—The extent to which your writing is free of errors in usage and mechanics

## WritePlacer Sample Topic

*Prepare a multiple-paragraph writing sample of about 300–600 words on the topic below. You should use the time available to plan, write, review, and edit what you have written. Read the assignment carefully before you begin to write.*

Some schools require each student to participate in an organized school sport chosen by the student. People at these schools argue that athletics is an important part of the educational experience and that there should be a rule requiring participation. Others argue that students should be free to decide whether or not they wish to participate in organized school sports. Write an essay for a classroom instructor in which you take a position on whether participation in organized school athletics should be required. Be sure to defend your position with logical arguments and appropriate examples. Your essay must be 300–600 words in length.

## Arithmetic

This test measures your ability to perform basic arithmetic operations and to solve problems that involve fundamental arithmetic concepts. There are 17 questions on the Arithmetic tests, divided into three types.

- **Operations with whole numbers and fractions:** Topics included in this category are addition, subtraction, multiplication, division, recognizing equivalent fractions and mixed numbers, and estimating.
- **Operations with decimals and percents:** Topics include addition, subtraction, multiplication, and division with decimals. Percent problems, recognition of decimals, fraction and percent equivalencies, and problems involving estimation are also given.
- **Applications and problem solving:** Topics include rate, percent, and measurement problems; simple geometry problems; and distribution of a quantity into its fractional parts.

## Arithmetic Sample Questions

Solve the following problems and select your answer from the choices given. You may use the paper you have been given for scratch paper.

- $2.75 + .003 + .158 =$ 
  - 4.36
  - 2.911
  - 0.436
  - 2.938
- $7.86 \times 4.6 =$ 
  - 36.156
  - 36.216
  - 351.56
  - 361.56
- $\frac{7}{20} =$ 
  - 0.035
  - 0.858
  - 0.35
  - 3.5
- Which of the following is the least?
  - 0.105
  - 0.501
  - 0.015
  - 0.15
- All of the following are ways to write 25 percent of N EXCEPT
  - 0.25 N
  - $\frac{25N}{100}$
  - $\frac{1}{4} N$
  - 25 N
- Which of the following is closest to  $27.8 \times 9.6$ ?
  - 280
  - 300
  - 2,800
  - 3,000
- A soccer team played 160 games and won 65 percent of them. How many games did it win?
  - 94
  - 104
  - 114
  - 124

- 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 one-half of his time to the project and a second person for one-third of her time, what part of the third worker's time should be budgeted to this project?
  - $\frac{1}{3}$
  - $\frac{3}{5}$
  - $\frac{1}{6}$
  - $\frac{1}{8}$
- 32 is 40 percent of what number?
  - 12.8
  - 128
  - 80
  - 800
- $3\frac{1}{3} - 2\frac{2}{5} =$ 
  - $1\frac{1}{2}$
  - $\frac{1}{15}$
  - $\frac{14}{15}$
  - $1\frac{1}{15}$

## Elementary Algebra


A total of 12 questions of three types are administered in this test.

- The first type involves operations with integers and rational numbers, and includes computation with integers and negative rationals, the use of absolute values, and ordering.
- The second type involves operations with algebraic expressions using evaluation of simple formulas and expressions, and adding and subtracting monomials and polynomials. Questions involve multiplying and dividing monomials and polynomials, the evaluation of positive rational roots and exponents, simplifying algebraic fractions, and factoring.
- The third type of question involves translating written phrases into algebraic expressions and solving equations, inequalities, word problems, linear equations and inequalities, quadratic equations (by factoring), and verbal problems presented in an algebraic context.

# Elementary Algebra

## Sample Questions

Solve the following problems and select your answer from the choices given. You may use the paper you have been given for scratch paper.

- 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 in cents?
  - A + B
  - 25(A + B)
  - 10A + 15B
  - 15A + 10B
- $\sqrt{2} \times \sqrt{15} = ?$ 
  - 17
  - 30
  - $\sqrt{30}$
  - $\sqrt{17}$
- What is the value of the expression  $2x^2 + 3xy - 4y^2$  when  $x = 2$  and  $y = -4$ ?
  - 80
  - 80
  - 32
  - 32
- In the figure below, both circles have the same center, and the radius of the larger circle is  $R$ . If the radius of the smaller circle is 3 units less than  $R$ , which of the following represents the area of the shaded region?
 

- $\pi R^2$
- $\pi(R - 3)^2$
- $\pi R^2 - \pi \times 3^2$
- $\pi R^2 - \pi(R - 3)^2$

- $(3x - 2y)^2 =$ 
  - $9x^2 - 4y^2$
  - $9x^2 + 4y^2$
  - $9x^2 + 4y^2 - 6xy$
  - $9x^2 + 4y^2 - 12xy$

6. If  $x > 2$ , then  $\frac{x^2 - x - 6}{x^2 - 4} =$

- $\frac{x-3}{2}$
- $\frac{x-3}{x-2}$
- $\frac{x-3}{x+2}$
- $\frac{3}{2}$

7.  $\frac{4 - (-6)}{-5} =$

- $\frac{2}{5}$
- $-\frac{2}{5}$
- 2
- 2

8. If  $2x - 3(x + 4) = -5$ , then  $x =$

- 7
- 7
- 17
- 17

9.  $-3(5 - 6) - 4(2 - 3) =$

- 7
- 7
- 1
- 1

10. Which of the following expressions is equivalent to  $20 - \frac{4}{5}x \geq 16$ ?

- $x \leq 5$
- $x \geq 5$
- $x \geq 32\frac{1}{2}$
- $x \leq 32\frac{1}{2}$

## College-Level Mathematics Test

The College-Level Mathematics test measures your ability to solve problems that involve college-level mathematics concepts. There are six content areas measured on this test: (a) Algebraic Operations, (b) Solutions of Equations and Inequalities, (c) Coordinate Geometry, (d) Applications and other Algebra Topics, (e) Functions, and (f) Trigonometry. The Algebraic Operations content area includes the simplification of rational algebraic expressions, factoring and expanding polynomials, and manipulating roots and exponents. The Solutions of Equations and Inequalities content area includes the solution of linear and quadratic equations and inequalities, systems of equations, and other algebraic equations. The Coordinate Geometry content area presents questions involving plane geometry, the coordinate plane, straight lines, conics, sets of points in the plane, and graphs of algebraic functions. The Functions content area includes questions involving polynomial, algebraic, exponential, and logarithmic functions. The Trigonometry content area includes trigonometric functions. The Applications and other Algebra Topics content area contains complex numbers, series and sequences, determinants, permutations and combinations, factorials, and word problems. A total of 20 questions are administered on this test.

### Sample Questions

Solve the problem. Use the paper you were given for scratchwork.

1.  $2^{\frac{5}{2}} - 2^{\frac{3}{2}}$

- A.  $2^{\frac{1}{2}}$
- B. 2
- C.  $2^{\frac{3}{2}}$
- D.  $2^{\frac{5}{3}}$
- E.  $2^2$

2. If  $a \neq b$  and  $\frac{1}{x} + \frac{1}{a} = \frac{1}{b}$ , then  $x =$

- A.  $\frac{1}{b} - \frac{1}{a}$
- B.  $b - a$
- C.  $\frac{1}{ab}$
- D.  $\frac{a-b}{ab}$
- E.  $\frac{ab}{a-b}$

3. If  $3x^2 - 2x + 7 = 0$ , then  $(x - \frac{1}{3})^2 =$

- A.  $\frac{20}{9}$
- B.  $\frac{7}{9}$
- C.  $-\frac{7}{9}$
- D.  $-\frac{8}{9}$
- E.  $\frac{20}{9}$

4. The graph of which of the following equations is a straight line parallel to the graph of  $y = 2x$ ?

- A.  $4x - y = 4$
- B.  $2x - 2y = 2$
- C.  $2x - y = 4$
- D.  $2x + y = 2$
- E.  $x - 2y = 4$

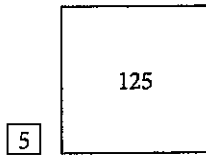
5. An equation of the line that contains the origin and the point (1, 2) is

- A.  $y = 2x$
- B.  $2y = x$
- C.  $y = x - 1$
- D.  $y = 2x + 1$
- E.  $\frac{y}{2} = x - 1$

6. An apartment building contains 12 units consisting of one- and two-bedroom apartments that rent for \$360 and \$450 per month, respectively. When all units are rented, the total monthly rental is \$4,950. What is the number of two-bedroom apartments?

- A. 3
- B. 4
- C. 5
- D. 6
- E. 7

7. If the two square regions in the figures below have the respective areas indicated in square yards, how many yards of fencing are needed to enclose the two regions?



- A.  $4\sqrt{130}$   
 B.  $20\sqrt{10}$   
 C.  $24\sqrt{5}$   
 D. 100  
 E.  $104\sqrt{5}$
8. If  $\log_{10} x = 3$ , then  $x =$   
 A.  $3^{10}$   
 B. 1,000  
 C. 30  
 D.  $\frac{10}{3}$   
 E.  $\frac{3}{10}$
9. If  $f(x) = 2x + 1$  and  $g(x) = \frac{x-1}{2}$ , then  $f(g(x)) =$   
 A.  $x$   
 B.  $\frac{x-1}{4x+2}$   
 C.  $\frac{4x+2}{x-1}$   
 D.  $\frac{5x+1}{2}$   
 E.  $\frac{(2x+1)(x-1)}{2}$
10. If  $\theta$  is an acute angle and  $\sin \theta = \frac{1}{2}$ , then  $\cos \theta =$   
 A. -1  
 B. 0  
 C.  $\frac{1}{2}$   
 D.  $\frac{\sqrt{3}}{2}$   
 E. 2

## ACCUPLACER ESL Reading Skills Test

The ESL Reading Skills test measures your ability to read English. Specifically, it assesses your comprehension of short passages. It contains brief passages of 50 words or less and moderate length passages of 50 to 90 words. Half of this test contains straightforward comprehension items (paraphrase, locating information, vocabulary on a phrase level, and pronoun reference). The other half assesses inference skills (main idea, fact versus opinion, cause/effect logic, identifying irrelevant information, author's point of view, and applying the author's logic to another situation).

### Sample Questions

1. Television has been introduced to almost every country in the world, reaching a large number of viewers on every continent. About 600 million people saw the first person walk on the moon, and a billion people watched the twentieth Olympic Games. Television has in many ways promoted understanding and cooperation among people. It does this by showing educational and cultural programs.

According to the passage, which of the following is true?

- A. Television is watched in nearly every country.  
 B. Not everybody who had a television set could watch the 1998 World Cup finals.  
 C. Watching television makes people dissatisfied with their own lives.  
 D. Television was invented in 1980.
2. Janet's parents bought her a new sports car as a birthday present. It was blue. Janet sold her 7-year-old blue pickup truck to a high school student. The truck could not go very fast, but the student was happy with it.

According to the passage, which of these statements is true?

- A. Janet bought a pickup truck and a sports car.  
 B. The pickup truck was faster than the sports car.  
 C. The high school student traded cars with Janet.  
 D. The pickup truck was older than the sports car.