

## What kinds of questions are on ACCUPLACER?

### *Reading Comprehension*

This test is designed to measure how well you understand what you read. It contains 20 questions. Some questions are the sentence relationship type in which you must choose how sentences are related. Other questions refer to reading passages of varying lengths.

### *Sentence Skills*

Two kinds of questions are given in this test. Sentence correction questions ask you to choose a word or a phrase to substitute for an underlined portion of a sentence.

Construction shift questions ask that a sentence be rewritten in a specific way without changing the meaning. A variety of topics is included. You will be given 20 questions.

### *Arithmetic*

The arithmetic test measures your skills in three primary categories. The first is operations with whole numbers and fractions. This includes addition, subtraction, multiplication, division and recognizing equivalent fractions and mixed numbers. The second category involves operations with decimals and percents. It includes addition, subtraction, multiplication, and division as well as percent problems, decimal recognition, fraction and percent equivalences, and estimation problems. The last category tests applications and problem solving. Questions include rate, percent, and measurement problems, geometry problems, and distribution of a quantity into its fractional parts. A total of 16 questions are asked.

### *Elementary Algebra*

There are also three categories in the Elementary Algebra Test. The first category, operations with integers and rational numbers, includes computation with integers and negative rationals, the use of absolute values, and ordering. The second category is operations with algebraic expressions. It tests your skills in evaluating simple formulas and expressions, and in adding and subtracting monomials and polynomials. Both of these categories include questions about multiplying and dividing monomials and polynomials, evaluating positive rational roots and exponents, simplifying algebraic fractions, and factoring. The third category tests skill in solving equations, inequalities, and word problems. These questions include solving systems of linear equations, quadratic equations by factoring, verbal problems presented in algebraic context, geometric reasoning, the translation of written phrases into algebraic expressions, and graphing. Twelve questions are presented.

### *College-Level Mathematics*

The College-Level Mathematics test assesses proficiency from intermediate algebra through pre-calculus. Five categories are covered. The first category, algebraic operations, includes simplifying rational algebraic expressions, factoring, expanding polynomials, and manipulating roots and exponents. The category, solutions of equations and inequalities, includes the solution of linear and quadratic equations and inequalities, equation systems, and other algebraic equations. Coordinate geometry asks questions about plane geometry, the coordinate plane, straight lines, conics, sets of points in the

plane, and graphs of algebraic functions. Applications and other algebra topics asks about complex numbers, series and sequences, determinants, permutations and combinations, fractions, and word problems. The last category, functions and trigonometry, presents questions about polynomial, algebraic, exponential, logarithmic and trigonometric functions. Twenty questions are asked.

### **Sample Questions**

Sample questions are shown below for each of the ACCUPLACER tests. These questions cover only a few of the areas covered by each test.

Sample questions are covered in:

reading comprehension

sentence skills

arithmetic

elementary algebra

college-level mathematics

## **Reading Comprehension**

### **Question 1: Narrative**

Read the statement or passage and then choose the best answer to the question. Answer the question on the basis of what is stated or implied in the statement or passage.

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 the 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

### **Question 2: Sentence Relationships**

Two bold sentences are followed by a question or statement about them. Read each pair of sentences and then choose the best answer to the question or the best completion of the statement.

**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.

**ANSWERS** (Reading Comprehension)

- 1. B
- 2. B

**Sentence Skills**

Question 1: Sentence Correction

Select the best version of the bold part of the sentence. The first choice is the same as the original sentence. If you think the original sentence is best, choose the first answer.

Ms. Rose **planning** to teach a course in biology next summer.

- A. planning
- B. are planning
- C. with a plan
- D. plans

Question 2: Sentence Correction

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

Question 3: Sentence Correction

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

Question 4: Sentence Correction

**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

Question 5: Sentence Correction

**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

Question 6: Sentence Correction

**When you cross the street in the middle of the block, this** is an example of jaywalking.

- A. When you cross the street in the middle of the block, this
- B. You cross the street in the middle of the block, this
- C. Crossing the street in the middle of the block
- D. The fact that you cross the street in the middle of the block

Question 7: Sentence Correction

Walking by the corner the other day, **a child, I noticed, was watching** for the light to change.

- A. a child, I noticed, was
- B. I noticed a child watching
- C. a child was watching, I noticed,
- D. there was, I noticed, a child watching

Question 8: Construction Shift

Rewrite the sentence in your head, following the directions given below. Keep in mind that your new sentence should be well written and should have essentially the same meaning as the sentence given you.

**Being a female jockey, she was often interviewed.**

*Rewrite, beginning with*

She was often interviewed...

*The next words will be*

- A. on account of she was
- B. by her being
- C. because she was
- D. being as she was

Question 9: Construction Shift

In his songs, Gordon Lightfoot makes melody and lyrics intricately intertwine.

*Rewrite, beginning with*

Melody and lyrics...

*Your new sentence will include*

- A. Gordon Lightfoot has
- B. make Gordon Lightfoot's
- C. in Gordon Lightfoot's
- D. does Gordon Lightfoot

Question 10: Construction Shift

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

Question 11: Construction Shift

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

Question 12: Construction Shift

If he had enough strength, Todd would move the boulder.

*Rewrite, beginning with*

Todd cannot move the boulder...

*The next words will be*

- A. when lacking

- B. because he
- C. although there
- D. without enough

Question 13: Construction Shift

The band began to play, and then the real party started.

*Rewrite, beginning with*

The real party started...

*The next words will be*

- A. after the band began
- B. and the band began
- C. although the band began
- D. the band beginning

Question 14: Construction Shift

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

**ANSWERS** (Sentence Skills)

- 1. D
- 2. C
- 3. C
- 4. A
- 5. B
- 6. C
- 7. B
- 8. C
- 9. C
- 10. C
- 11. B
- 12. B
- 13. A
- 14. D

### Arithmetic

Solve the following problems and choose your answer from the alternatives given. You may use the paper you have been given for scratch work.

Question 1:

All of the following are ways to write 20 percent of N, EXCEPT

- A.  $0.20N$
- B.  $20/100N$
- C.  $1/5N$
- D.  $20N$

Question 2:

$7/20$

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

Question 3:

$7.86 \times 4.6 =$

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

Question 4:

Which of the following is the least?

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

Question 5:

The average weight for a group of 20 women is 130 pounds. If the average weight for  $3/4$  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

Question 6:

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

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

Question 7:

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

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

The table above show 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

Question 8:

Which of the following is closest to ?

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

Question 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 this project?

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

- B.  $\frac{1}{4}$
- C.  $\frac{1}{6}$
- D.  $\frac{1}{8}$

**ANSWERS** (Arithmetic)

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

**Elementary Algebra**

Question 1:

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

Question 2:

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

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

Question 3:

$$16x - 8 =$$

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

D.  $8(2x - 8)$

Question 4:

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

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

**ANSWERS (Elementary Algebra)**

- 1. A
- 2. D
- 3. C
- 4. A

**College-Level Mathematics**

Question 1:

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

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

Question 2:

The equation  $x^2 + 2ix - 4 = 0$  has as its roots

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

**ANSWERS (College-Level Mathematics)**

- 1. D
- 2. E