

- Rock Valley College uses ACCUPLACER, an online placement test featuring a computer-based format, unlimited time and immediate scores
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To Prepare for the Placement Test:

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- 2) Review the sample questions and answers in this brochure.

READING COMPREHENSION

The ACCUPLACER Reading Comprehension test consists of approximately 20 questions of two types.

- First type – consists of a reading passage followed by a question based on the text. Both short and long passages are provided. The reading passages can also be classified according to the kind of information processing required including explicit statements related to the main idea, explicit statements to a secondary idea, application and inference.
- Second type – consists of question, sentence relationships, presents two sentences followed by a question about the relationship between these two sentences. The question may ask, for example, if the statement in the second sentence supports that in the first, if it contradicts it, or if it repeats the same information.

Reading Comprehension Sample Questions Directions for questions 1-6

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

1. 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.
2. Unemployment was the overriding fact of life when Franklin D. Roosevelt became president of the United States on March 4, 1933. An anomaly of the time was that the government did not systematically collect statistics of joblessness; actually it did not start doing so until 1940. The Bureau of Labor Statistics later estimated that 12,830,000 persons were out of work in 1933, about one-fourth of a civilian labor force of more than 51 million.

Roosevelt signed the Federal Emergency Relief Act (FERA) on May 12, 1933. The president selected Harry L. Hopkins, who headed the New York relief program, to run FERA. A gifted administrator, Hopkins quickly put the program into high gear. He gathered a small staff in Washington and brought the state relief organizations into the FERA system. While the agency tried to provide all the necessities, food came first. City dwellers usually got an allowance for fuel, and rent for one month was provided in case of eviction.

This passage is primarily about

- A. unemployment in the 1930s.
- B. the effect of unemployment on United States families.
- C. President Franklin D. Roosevelt's presidency.
- D. President Roosevelt's FERA program.

3. It is said that a smile is universally understood. And nothing triggers a smile more universally than a taste of sugar. Nearly everyone loves sugar. Infant studies indicate that humans are born with an innate love of sweets. Based on statistics, a lot of people in Great Britain must be smiling because on average, every man, woman, and child in that country consumes 95 pounds of sugar each year.

From this passage it seems safe to conclude that the English

- A. do not know that too much sugar is unhealthy.
 - B. eat desserts at every meal.
 - C. are fonder of sweets than most people.
 - D. have more cavities than any other people.
4. With varying success, many women around the world today struggle for equal rights. Historically, women have achieved greater equality with men during periods of social adversity. Three of the following factors initiated the greatest number of improvements for women: violent revolution, world war, and the rigors of pioneering in an undeveloped land. In all three cases, the essential element that improved the status of women was a shortage of men, which required women to perform many of society's vital tasks.

We can conclude from the information in this passage that

- A. women today are highly successful in winning equal rights.
 - B. only pioneer women have been considered equal to men.
 - C. historically, women have only achieved equality through force.
 - D. historically, the principle of equality alone has not been enough to secure women equal rights.
5. In 1848, Charles Burton of New York City made the first baby carriage, but people strongly objected to the vehicles because they said the carriage operators hit too many pedestrians. Still convinced that he had a good idea, Burton opened a factory in England. He obtained orders for the baby carriages from Queen Isabella II of Spain, Queen Victoria of England, and the Pasha of Egypt. The United States had to wait another 10 years before it got a carriage factory, and only 75 carriages were sold in the first year.

Even after the success of baby carriages in England,

- A. Charles Burton was a poor man.
 - B. Americans were still reluctant to buy baby carriages.
 - C. Americans purchased thousands of baby carriages.
 - D. the United States bought more carriages than any other country.
6. All water molecules form six-sided structures as they freeze and become snow crystals. The shape of the crystal is determined by temperature, vapor, and wind conditions in the upper atmosphere. Snow crystals are always symmetrical because these conditions affect all six sides simultaneously.

The purpose of the passage is to present

- A. a personal observation.
- B. a solution to a problem.
- C. actual information.
- D. opposing scientific theories.

Directions for questions 7–10

For the questions that follow, two underlined sentences are followed by a question or statement. Read the sentences, then choose the best answer to the question or the best completion of the statement.

7. ① The Midwest is experiencing its worst drought in 15 years.
② 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.

8. ① Social studies classes focus on the complexity of our social environment.
② The subject combines the study of history and the social sciences and promotes skills in citizenship.

What does the second sentence do?

- A. It gives an example.
- B. It makes a contrast.
- C. It proposes a solution.
- D. It states an effect.

9. ① Knowledge of another language fosters greater awareness of cultural diversity among the peoples of the world.
② 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. ① Serving on a jury is an important obligation of citizenship.
② 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.

SENTENCE SKILLS (English)

The ACCUPLACER Sentence Skills Test consists of approximately 20 Sentence Skills questions of two types.

- *First type – is sentence correction questions that require an understanding of sentence structure. These questions ask you to choose the most appropriate word or phrase to substitute for the underlined portion of the sentence.*
- *Second type – is construction shift questions. These questions ask that a sentence be rewritten according to the criteria shown while maintaining essentially the same meaning as the original sentence.*

Within these two primary categories, the questions are also classified according to the skills being tested.

Some questions deal with the logic of the sentence, others with whether or not the answer is a complete sentence, and still others with the relationship between coordination and subordination.

Sentence Skills Sample Questions

Directions for questions 1–5

Select the best version of the underlined 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.

1. Stamp collecting being a hobby that is sometimes used in the schools to teach economics and social studies.
 - A. being a hobby that is
 - B. is a hobby because it is
 - C. which is a hobby
 - D. is a hobby
2. 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,
3. 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
4. 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
5. 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

Directions for questions 6–10

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 original sentence.

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. Although the sandpiper is easily frightened by noise and light, it will bravely resist any force that threatens its nest.

Rewrite, beginning with

The sandpiper is easily frightened by noise and light,

The next words will be

- A. but it will bravely resist
- B. nevertheless bravely resisting
- C. and it will bravely resist
- D. even if bravely resisting

8. 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

9. 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

10. 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	
Reading	Sentence Skills
1. C	1. D
2. D	2. A
3. C	3. B
4. D	4. C
5. B	5. B
6. C	6. C
7. B	7. A
8. A	8. B
9. D	9. A
10. A	10. D

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Three (3) math tests are available in the ACCUPLACER system:

- 1 - Arithmetic
- 2 - Elementary Algebra
- 3 - College-Level Math

All students take the Elementary Algebra test. Students scoring in the higher ranges on Elementary Algebra may also be given the College-Level Math test.

Students scoring in the lower ranges on Elementary Algebra may also be given the Arithmetic test.

To prepare for the ACCUPLACER math test(s) it would be helpful to refresh all math skills – basic math facts through the highest level of math you have learned.

RVC BASIC MATH FACTS

Mastery and memorization of basic math facts is necessary to success in math.

For the sample exercise below, set a timer for 2 minutes and complete the addition, subtraction, multiplication and division problems in the chart *without* the use of a calculator.

1) $\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$	2) $\begin{array}{r} 0 \\ + 3 \\ \hline \end{array}$	3) $\begin{array}{r} 8 \\ + 5 \\ \hline \end{array}$	4) $\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$	5) $\begin{array}{r} 17 \\ - 9 \\ \hline \end{array}$	6) $\begin{array}{r} 15 \\ - 8 \\ \hline \end{array}$	7) $\begin{array}{r} 14 \\ - 6 \\ \hline \end{array}$	8) $\begin{array}{r} 17 \\ - 6 \\ \hline \end{array}$	9) $\begin{array}{r} 18 \\ - 7 \\ \hline \end{array}$	10) $\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$
11) $\begin{array}{r} 12 \\ \times 5 \\ \hline \end{array}$	12) $\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$	13) $\begin{array}{r} 11 \\ \times 5 \\ \hline \end{array}$	14) $\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$	15) $\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$	16) $\begin{array}{r} 0 \\ \times 6 \\ \hline \end{array}$	17) $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$	18) $\begin{array}{r} 11 \\ \times 6 \\ \hline \end{array}$	19) $\begin{array}{r} 63 \\ 9 \\ \hline \end{array}$	20) $\begin{array}{r} 56 \\ 8 \\ \hline \end{array}$
21) $42 \div 7$	22) $0 \div 5$	23) $54 \div 6$	24) $72 \div 9$	25) $6 \div 6$	26) $36 \div 3$	27) $0 \div 4$	28) $\begin{array}{r} 8 \\ + 3 \\ \hline \end{array}$	29) $\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$	30) $\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$

ARITHMETIC

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

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

1. $2.75 + .003 + .158 =$

- A. 4.36
- B. 2.911
- C. 0.436
- D. 2.938

2. $7.86 \times 4.6 =$

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

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

- A. 0.035
- B. 0.858
- C. 0.35
- D. 3.5

4. Which of the following is the least?

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

5. All of the following are ways to write 25 percent of N except

- A. $0.25N$
- B. $\frac{25N}{100}$
- C. $\frac{1}{4}N$
- D. $25N$

6. Which of the following is closest to 27.8×9.6 ?

- A. 280
- B. 300
- C. 2,800
- D. 3,000

7. 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

8. 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?

- A. $\frac{1}{3}$
- B. $\frac{3}{5}$
- C. $\frac{1}{6}$
- D. $\frac{1}{8}$

9. 32 is 40 percent of what number?

- A. 12.8
- B. 128
- C. 80
- D. 800

10. $3\frac{1}{3} - 2\frac{2}{5} =$

- A. $1\frac{1}{2}$
- B. $\frac{1}{15}$
- C. $\frac{14}{15}$
- D. $1\frac{1}{15}$

ELEMENTARY ALGEBRA

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

- 1) 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.
- 2) A 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.
- 3) 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.

1. 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 purchase in cents?

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

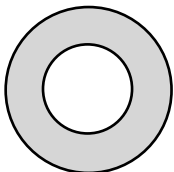
2. $\sqrt{2} \times \sqrt{15} = ?$

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

3. What is the value of the expression when $2x^2 + 3xy - 4y^2$ when $x = 2$ and $y = -4$?

- A. -80
- B. 80
- C. -32
- D. 32

4. 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?



- A. πR^2
- B. $\pi(R-3)^2$
- C. $\pi R^2 - \pi \times 3^2$
- D. $\pi R^2 - \pi(R-3)^2$

5. $(3x - 2y)^2 =$

- A. $9x^2 - 4y^2$
- B. $9x^2 + 4y^2$
- C. $9x^2 + 4y^2 - 6xy$
- D. $9x^2 + 4y^2 - 12xy$

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

- A. $\frac{x-3}{2}$
- B. $\frac{x-3}{x-2}$
- C. $\frac{x-3}{x+2}$
- D. $\frac{3}{2}$

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

- A. $\frac{2}{5}$
- B. $-\frac{2}{5}$
- C. 2
- D. -2

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

- A. 7
- B. -7
- C. 17
- D. -17

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

- A. -7
- B. 7
- C. -1
- D. 1

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

- A. $x \leq 5$
- B. $x \geq 5$
- C. $x \geq 32\frac{1}{2}$
- D. $x \leq 32\frac{1}{2}$

COLLEGE-LEVEL MATHEMATICS TEST

Only those students who desire to complete an upper-level math course, such as Trigonometry, Finite Mathematics, and Calculus, will need to take this exam. Students pursuing a degree in mathematics, engineering, etc. may need upper-level math classes and should consult with an Academic Advisor/Counselor to choose the correct course(s) for your degree. This test has 20 questions that measure your ability to solve problems that involve college-level mathematics concepts. There are six content areas measured on this test:

- 1) **Algebraic Operations:** includes the simplification of rational algebraic expressions, factoring and expanding polynomials, and manipulating roots and exponents.
- 2) **Solutions of Equations and Inequalities:** includes the solution of linear and quadratic equations and inequalities, systems of equations, and other algebraic equations.
- 3) **Coordinate Geometry:** involves plane geometry, the coordinate plane, straight lines, conics, sets of points in the plane, and graphs of algebraic functions.
- 4) **Applications and other Algebraic Topics:** contains complex numbers, series and sequences, determinants, permutations and combinations, factorials, and word problems.
- 5) **Functions:** includes questions involving polynomial, algebraic, exponential, and logarithmic functions.
- 6) **Trigonometry:** includes trigonometric functions.

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. $\frac{y}{2} = x - 1$

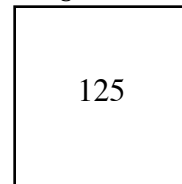
6. An apartment building contains 12 units consisting of one- and two-bedroom apartments that rent for \$360 and \$450 per month, respectively. When all units are rented, the total monthly rents is \$4,950. What is the number two-bedroom apartments?

- 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. $104\sqrt{5}$

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 θ 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

ANSWERS

Basic Math Facts:

1) 11	2) 3	3) 13	4) 9	5) 8
6) 7	7) 8	8) 11	9) 11	10) 42
11) 60	12) 56	13) 55	14) 36	15) 56
16) 0	17) 40	18) 66	19) 7	20) 7
21) 6	22) 0	23) 9	24) 8	25) 1
26) 12	27) 0	28) 11	29) 5	30) 45

Arithmetic		Elementary Algebra		College-Level Math	
1	B	1	D	1	C
2	A	2	C	2	E
3	C	3	A	3	E
4	C	4	D	4	C
5	D	5	D	5	A
6	A	6	B	6	E
7	B	7	D	7	C
8	C	8	B	8	B
9	C	9	B	9	A
10	C	10	A	10	D