



# ACCUPLACER REVIEW PACKET

*From orientation to graduation...*

**Department of Advising and Counseling**

*...a commitment to academic success and student retention.*

Community College of Rhode Island

# ACCUPLACER REVIEW PACKET

## What you should know

### Why the Accuplacer Placement Test is Administered

Accuplacer is administered to matriculating students to ensure academic success in English and Mathematics, as these courses are foundational to virtually every degree program offered at Community College of Rhode Island.

Testing aims for success by revealing each prospective student's skill level in English and Mathematics. Mandatory placement based on test scores, correspond to the skill level of each student. Using these mandatory placements, students will begin classes at a level where they are more likely to succeed.

### Who is Required to Complete Placement Testing?

All matriculated students are required to complete placement testing prior to course registration, unless the Advising and Counseling Department grants a test waiver.

### Waiver Criteria

The CCRI Advising and Counseling Department will consider students for placement testing waivers based on certain academic criteria, however waivers are not automatically granted to students meeting the criteria below. Waivers are considered individually after a thorough review of the respective student's entire academic record. Students eligible for waiver from all or part of the Accuplacer exam must meet at least one of the following criteria:

- Students who have completed ACCUPLACER at another institution within the past year
- Students who have transfer credits in college-level English and Math classes

If College-level math courses were completed more than two years ago, placement testing is strongly recommended to obtain estimates of current skill levels for advisement purposes.

Students requesting a waiver from ACCUPLACER should contact the Advising and Counseling Department.

### Preparing for the Placement Test

Preparation is suggested to insure that test scores accurately represent your current skill levels. Reviewing basic concepts in reading, grammar, arithmetic and algebra before taking ACCUPLACER should assist you in preparation for the test.

### Making your Appointment for the Accuplacer Assessment

To schedule your appointment for the Accuplacer Assessment, please contact the Advising and Counseling Department at:

401-825-2301--Warwick Campus

401-333-7159--Lincoln Campus

401-455-6149--Providence Campus

**Referral Sources for Preparation (available at most libraries and bookstores)**

You may find the following resources helpful in your preparation for Accuplacer:

**Reading Comprehension and Sentence Skills**

- GED Review Book.
- SAT I Review Books (publishers include: Arco, Kaplan, Nova and Barrons).

Arithmetic Review

*Essential Mathematics: Basic Math for Everyday Use*, Williams and Akins, Barrons.

*Contemporary's Building Basic Skills in Mathematics*, Contemporary Books.

GED Review Book.

SAT I Review Books (publishers include: Arco, Kaplan, Nova and Barrons).

Algebra Review

*Forgotten Algebra*, Bleau, Barrons.

*Quick Algebra Review: A Self-Teaching Guide*, Selby and Slavin, Wiley.

SAT I Review Books (publishers include: Arco, Kaplan, Nova, and Barrons).

Web Sites:

- [www.Mathmax.com](http://www.Mathmax.com) Pay attention especially to the Pre-algebra and Introductory Algebra sections. In Pre-Algebra, focus on operations involving fractions, decimals, percentages, ratios and proportions. In Introductory Algebra, focus on factoring, exponentials, and solving equations.
- [www.AAAmath.com](http://www.AAAmath.com) This site contains a volume of pages that focus on basic math skills, interactive practice on every page, explanation of concepts on every page, challenge games and random mathematics problems.

- [www.MyMathTest.com](http://www.MyMathTest.com) This test, created by the Nassau Community College Math Department is an excellent test that parallels the format of Accuplacer mathematics exams.
- [www.Math.com](http://www.Math.com) This is a very comprehensive site that reviews principles from basic mathematics to calculus. We recommend the Pre-algebra and Algebra sections for review.
- [www.rvc.cc.il.us/assessment/resources.htm](http://www.rvc.cc.il.us/assessment/resources.htm) Rock Valley College in Rockview, Illinois has developed a comprehensive list of study resources for all areas of the Accuplacer examination.

### **Computer Delivered Testing**

Accuplacer is a computer-based test delivered via the Internet. Minimal computer skills are needed to complete the test. All information is entered by using the mouse and/or the keyboard and only a small amount of information is typed. A proctor will always be present to assist with problems that relate to test format or to computer usage. Proctors may not, however, answer any academic-related questions associated with the test.

### **Adaptive Testing**

The Accuplacer test is an adaptive test. This means that the computer uses your answers to questions to determine the level of difficulty of each successive question asked. Using this technique, we can determine your skill level on each section of the test by asking relatively few questions. **The test is untimed, so that you can give each question as much thought as you wish.** Once you have verified your answer, however, you cannot return to that question.

### **Administrative Instructions**

**A photo ID (driver's license, student ID, work ID, etc.) is required at the time of check-in.**

Before testing begins, a proctor will give administrative instructions to all students who are about to test. These instructions are also available at each computer station. In order to ensure ideal testing conditions for all students, you will be asked to minimize noise in the lab at all times, to turn off all cell phones and pagers, not to talk during testing, and to maintain silence if you have to leave the room to take a break. Additionally, students are not normally authorized use of a calculator or dictionary to complete any portion of the test unless special arrangements have been made (read the following paragraph on accommodations for students with disabilities). Students who are caught violating any administrative instructions may be asked to leave the lab and return at a later time to retake the test.

### **Testing of Students with Disabilities**

Students who need Accuplacer testing and are eligible for special accommodations should ensure that the appropriate documentation, reflecting the specified accommodations, is forwarded to the

CCRI Office of Disability Services at least two weeks prior to desired testing. Please call Disability Services at 401-825-2164 Warwick Campus, or 401-333-7329 Lincoln Campus, or 401-455-6064 Providenc Campus to discuss accommodations and to schedule a testing session where these accommodations can be used.

### **Review Questions**

The following questions are examples of the type of questions you may find on each section of the Accuplacer test. Simply reviewing these questions does not guarantee an improved Accuplacer score, but may serve as a useful starting point in beginning your preparation. Reading through each question and thoroughly understanding how each correct answer was derived will be an excellent starting point in your preparation to take this test!

### **Reading Comprehension Example Items**

The Reading Comprehension test contains 20-25 questions is designed to measure how well you understand what you read. Some questions refer to reading passages of various lengths and answering a series of questions about the content of the passage. Other questions ask you to examine two sentences and answer correctly how these two sentences are related.

*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. 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, ternity and God.

The main idea of this passage is that myths

- A. are created primarily to entertain young children.
- B. are purposefully 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 society.

2. In the words of Thomas DeQuincy, "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.

3. 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.

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 over 51,000,000.

Roosevelt signed the Federal Emergency Relief Act 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. FERA paid for medicine, some doctor bills, but no hospital costs, work-relief, sewing rooms, and renovated hand-me-down clothing.

This passage is primarily about

- A. unemployment in the 1930's.
  - B. the effect of unemployment on United States families.
  - C. President Franklin D. Roosevelt's presidency.
  - D. President Roosevelt's FERA program.
5. 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.

6. 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. 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.
7. Plastics are synthetic materials that are so common today that we barely notice them. The process of making plastics, called polymerization, is a little over a hundred years old. Vinyl chloride was polymerized in 1838, acrylics in 1843, and polyester in 1847. Oddly, those newly synthesized plastics languished in polymer laboratories for decades because no one had yet found a use for the new materials.

We can see from the information in this passage that

- A. commercial use of a material does not always rapidly follow its discovery.
  - B. people had no need for plastics in the 1800s.
  - C. the introduction of plastics in the 1800s would have upset the world economy.
  - D. no practical types of plastics were invented until the 20<sup>th</sup> century.
8. Primitive people tended to be highly superstitious. Anything out of the ordinary that happened was regarded with superstitious fear. Most people throughout history have been right-handed. For that reason, left-handedness was regarded as an evil omen. The Latin word for left is sinister. Since many people regarded left-handedness as bad, the word sinister entered the English language meaning "evil."

From this passage we can conclude that fear and superstition usually grew from

- A. lack of knowledge.
  - B. left-handedness.
  - C. evil omens.
  - D. terrifying circumstances.
9. 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 ten years before it got a carriage factory, and the first year only 75 carriages were sold.

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.
10. All water molecules form six-sided structures as they freeze and become snow crystals. Temperature, vapor, and wind conditions in the upper atmosphere determine the shape of the crystal. 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.

### **Sentence Skills Sample Items**

Two kinds of questions are given in the Sentence Skills Accuplacer test, which includes 20 - 25 questions. *Sentence Correction* questions ask you to choose a word or 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.

**Directions:** Rewrite the underlined portions of each sentence. Keep in mind that your new sentence should be well written and should have essentially the same meaning as the sentence given to you. The first choice is the same as the original sentence. If you think the original sentence is best, choose the first answer.

1. 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
  
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. 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

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
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

6. 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
7. 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
8. Excited children ran toward the loud music, and they told others about the ice cream truck outside.

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

9. 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

10. 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

11. 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. when Chris heard no unusual noises
- C. and hearing no unusual noises
- D. Chris heard no unusual noises

### Arithmetic Sample Items

The Arithmetic Accuplacer test contains 17 questions and measures your skills in three primary categories:

- *Operations with whole numbers and fractions.* This includes addition, subtraction, multiplication, division, and recognizing equivalent fractions and mixed numbers.
- *Operations with decimals and percents.* This category includes addition, subtraction, multiplication, and division as well as percent problems, decimal recognition, fraction and percent equivalencies, and estimation problems.
- *Applications and problem-solving.* Questions include rate, percent, and measurement problems, geometry problems, and distribution of a quantity into its fractional parts.

**Directions:** Solve the following problems and select your answer from the alternatives given. You may use scrap paper. Remember, no calculators are permitted on Accuplacer.

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

- A. 95
- B. 104
- C. 114
- D. 246

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

Position at Company K	Plant X	Plant Y
Mechanic	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 five 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.  $\frac{1}{2} + \frac{1}{3} =$

- A.  $\frac{5}{6}$
- B.  $\frac{1}{6}$

- C.  $\frac{1}{5}$
- D.  $\frac{2}{5}$

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

- A. .35%
- B.  $\frac{28}{100}$
- C. 0.35
- D. 3.5

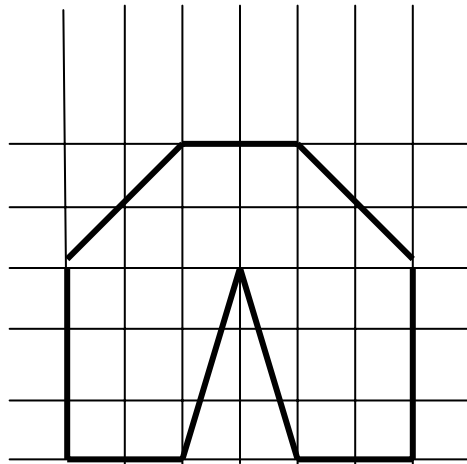
5. Which of the following is the least?

- 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.



If each of the small squares above represents one square unit, what is the area, in square units, of the figure?

- A. 23
- B. 28
- C. 22
- D. 18

8.  $\frac{5}{7} \times \frac{5}{8} =$

- A.  $\frac{7}{8}$
- B.  $\frac{35}{40}$
- C.  $\frac{40}{35}$
- D.  $\frac{25}{56}$

**NOTE:** *If you score high on the Arithmetic test, you will automatically take the Elementary Algebra test.*

### **Elementary Algebra Sample Items**

There are three categories of questions on the Elementary Algebra Accuplacer test, which includes 12 questions:

- 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 the preceding 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.

**Directions:** Solve the following problems and choose your answer from the alternatives given. You may use scrap paper. Remember, no calculators are permitted on Accuplacer.

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 purchases?

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

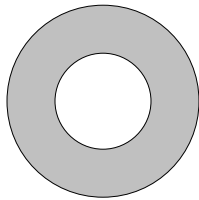
2.  $\sqrt{2} \times \sqrt{15} =$

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

3. The Greens scored one less than twice as many points as the Yellows. If the Yellows scored "N" points, which expression represents the total number of points scored by the two teams?

- A.  $2N - 1$
- B.  $2N$
- C.  $3N - 1$
- D.  $2(N-1)$

4.



In the figure above, both circles have the same center, and the radius of the larger circle is R. If the radius of the smaller circle is three units less than R, which of the following represents the area of the shaded region?

- A.  $\pi R^2$
- B.  $\pi (R-3)^2$
- C.  $\pi R^2 - \pi 3^2$
- 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.  $9x^2 + 4y^2 - 12xy$

## ANSWERS TO SAMPLE ITEMS

### Answers to Reading Comprehension Sample Items:

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

### Answers to Sentence Skills Sample Items:

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

### Answers to Arithmetic Sample Items:

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

### Answers to Elementary Algebra Sample Items:

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