

**College Level Study Materials for the Accuplacer Exam**

Updated February 25, 2005 by the ARCC Mathematics Department

The **college level** test measures your skills in five main categories.

- a. Algebraic operations  
This includes simplifying rational algebraic expressions, factoring and expanding polynomials, as well as manipulating roots and exponents.
- b. Solutions of equations and inequalities  
This includes solutions of linear and quadratic equations by factoring, expanding polynomials as well as manipulating roots and exponents.
- c. Coordinate geometry  
This section includes plane geometry, the coordinate plane, straight lines, conics, sets of points in a plane, and graphs of algebraic functions.
- d. Application and other algebra topics  
This includes complex numbers, sequences and series, determinants, permutations, combinations, fractions and word problems.
- e. Functions and trigonometry  
This includes polynomial functions, algebraic functions, exponential functions, logarithmic functions and trigonometric functions.

The following file is a sample test made by the ARCC math department. Note: this test consists of 50 problems, but the actual exam is 20 problems.

[ARCC College Level Practice Exam for the Accuplacer Placement Test](#)

[ARCC College Level Practice Exam for the Accuplacer Placement Test - ANSWERS](#)

Two sample questions for the college level test:

1. If the first and third terms of a geometric sequence are 3 and 27 respectively, then the second term could be
  - A. 6
  - B. 9
  - C. 12
  - D. 15
  - E. 18
  
2. What is the amplitude of  $y = 3 \sin 2x$  ?
  - A.  $\frac{2}{3}$
  - B. 2
  - C.  $\frac{3}{2}$
  - D. 3
  - E.  $\pi$

The answer to sample question 1 is B and the answer to sample question 2 is D.

You may wish to visit the following sites to refresh your college math skills:

<http://www.purplemath.com/modules>

This site has lessons on the topics listed for the college test but does not have practice exercises.

<http://www.mathclass.org/welcome-kemtp.htm>

When you click on practice test, this site generates different college level practice problems each time you use it..

[http://www.aims.edu/student/assessment/study\\_guides/colalg.pdf](http://www.aims.edu/student/assessment/study_guides/colalg.pdf)

This site has college level practice problems.

<http://www.nv3.commnet.edu/BCASERTA/MATHREVIEW/CollAlg.htm>

This site has college level practice problems with detailed solutions.

<http://www.montgomerycollege.edu/Departments/mathrv/placement/col.html>

This site has college level practice problems.

<http://www.testprepreview.com/>

This site has college level practice problems.