

College Math Assessment Test

AMERICAN RIVER COLLEGE ASSESSMENT CENTER

Math COMPASS TEST

SAMPLE ITEMS

These items are not actual items from COMPASS® but are similar in content and format. These items are presented for illustrative purposes and do not constitute a full representation of item content.

Numerical Skills/Pre-Algebra Placement

Averages: Means, Medians, and Modes

- 1 What is the average (arithmetic mean) of 8, 7, 7, 5, 3, 2, and 2?

A. $3\frac{1}{2}$
B. $4\frac{1}{2}$
C. $4\frac{2}{3}$
D. 5
E. $6\frac{1}{2}$

Basic Operations with Decimals

- 2 Ben is making wooden toys for the next arts and crafts sale. Each toy costs Ben \$1.80 to make. If he sells the toys for \$3.00 each, how many will he have to sell to make a profit of exactly \$36.00?

A. 12
B. 20
C. 30
D. 60
E. 108

Basic Operations with Fractions

- 3 How many yards of material from a $24\frac{1}{2}$ -yard length of cloth remain after 3 pieces, each $3\frac{1}{2}$ yards long, and 5 pieces, each $2\frac{1}{2}$ yards long, are removed?

A. $2\frac{1}{4}$
B. $4\frac{1}{4}$
C. $4\frac{5}{6}$
D. $10\frac{1}{4}$
E. $10\frac{5}{6}$

Percentages

- 4 Philip charged \$400 worth of goods on his credit card. On his first bill, he was not charged any interest, and he made a payment of \$20. He then charged another \$18 worth of goods. On his second bill a month later, he was charged 2% interest on his entire unpaid balance. How much interest was Philip charged on his second bill?

A. \$8.76
B. \$7.96
C. \$7.60
D. \$7.24
E. \$6.63

Answers: 1. C; 2. C; 3. A; 4. B

Algebra Placement

Elementary Algebra: Linear Equations in One Variable

- 1 A student has earned scores of 87, 81, and 88 on the first 3 of 4 tests. If the student wants an average (arithmetic mean) of exactly 87, what score must she earn on the fourth test?

A. 85
B. 86
C. 87
D. 92
E. 93

Elementary Algebra: Basic Operations with Polynomials

- 2 Which of the following expressions represents the product of 3 less than twice x and 2 more than the quantity 3 times x ?

A. $-6x^2 + 25x + 6$
B. $6x^2 + 5x + 6$
C. $6x^2 - 5x + 6$
D. $6x^2 - 5x - 6$
E. $6x^2 - 13x - 6$

Elementary Algebra: Substituting Values into Algebraic Expressions

- 3 If $x = -1$ and $y = 2$, what is the value of the expression $2x^2 - 3xy$?

A. 8
B. 4
C. -1
D. -4
E. -8

Intermediate Algebra: Rational Expressions

- 4 For all $r \neq -2$, $\frac{r^2 - 3r + 5}{r^2 - 4} = ?$

A. $\frac{r-1}{r+2}$
B. $\frac{r-2}{r+2}$
C. $\frac{r-2}{r+3}$
D. $\frac{r+3}{r-2}$
E. $\frac{r+3}{r+2}$

Coordinate Geometry: Linear Equations in Two Variables

- 5 What is the equation of the line that contains the points with (x,y) coordinates $(-3,7)$ and $(5,-1)$?

A. $y = 3x - 2$
B. $y = x + 10$
C. $y = -\frac{1}{3}x + 8$
D. $y = -\frac{3}{4}x + 4$
E. $y = -x + 4$

Answers: 1. D; 2. D; 3. B; 4. A; 5. E

Next Page 

College math assessment tests are standardized examinations designed to evaluate a student's mathematical skills and knowledge before they begin their college coursework. These tests serve a crucial role in the academic journey of many students, as they help institutions determine the appropriate level of math classes that a student should enroll in. This article will explore the purpose and structure of college math assessment tests, the types of content covered, preparation strategies, and the implications of the test results on a student's academic path.

Purpose of College Math Assessment Tests

College math assessment tests serve several important purposes:

1. **Placement Decisions:** The primary goal of these assessments is to place students in the correct

math courses. By evaluating students' skills, colleges can ensure that they are enrolled in classes that match their proficiency levels, which can enhance their chances of academic success.

2. Identify Skill Gaps: These tests can help identify areas where students may need additional support or remediation. This is particularly important for students who may not have had a strong foundation in mathematics during their high school education.

3. Streamline Academic Pathways: By accurately assessing students' abilities, colleges can streamline the educational pathway for students, helping them progress more efficiently through their degree programs.

4. Enhance Student Confidence: Successfully completing a math assessment can boost a student's confidence in their math abilities, encouraging them to engage more fully in their coursework.

Structure of College Math Assessment Tests

College math assessment tests can vary widely depending on the institution, but most share common foundational elements:

Format

- Multiple Choice: Many colleges use multiple-choice questions to assess students' knowledge of mathematical concepts. This format allows for quick grading and analysis.
- Open-Ended Questions: Some assessments may include open-ended questions that require students to show their work or explain their reasoning.
- Computer-Based Testing: Increasingly, colleges are adopting computer-based testing formats that can provide immediate feedback to students.

Duration and Scoring

- Test Length: The duration of these tests can range from 30 minutes to several hours, depending on the institution and the depth of the assessment.
- Scoring Systems: Scores are typically based on the number of correct answers, and institutions may have specific cutoff scores that determine placement in courses.

Content Covered in College Math Assessment Tests

The content of college math assessment tests generally covers a wide range of mathematical topics. The following are some common areas assessed:

1. Arithmetic: Basic operations, fractions, decimals, and percentages.
2. Algebra: Solving equations, working with inequalities, and understanding functions.
3. Geometry: Concepts involving shapes, areas, volumes, and theorems related to triangles and

circles.

4. Trigonometry: Basic trigonometric functions, identities, and solving right triangles.

5. Statistics and Probability: Understanding data, measures of central tendency, and basic probability concepts.

6. Precalculus: Functions, graphs, and the basics of limits and continuity.

Preparation Strategies for College Math Assessment Tests

Preparing for a college math assessment test can significantly impact a student's performance. Here are some effective strategies:

Review Fundamental Concepts

- Identify Weak Areas: Start by pinpointing areas where you may struggle. This could be done through self-assessment or by taking practice tests.
- Use Study Guides: Many colleges provide study guides or outlines of the topics covered on the test. These resources can be invaluable in focusing your studies.

Practice Regularly

- Take Practice Tests: Utilize practice tests available online or through your college. This will help familiarize you with the test format and timing.
- Work on Sample Problems: Actively working through sample problems can reinforce your understanding and improve problem-solving speed.

Utilize Online Resources and Tutoring

- Online Tutorials: Websites such as Khan Academy and Coursera offer free resources and courses that cover various math topics.
- Tutoring Services: Many colleges provide tutoring services for students. Taking advantage of these can provide personalized assistance.

Form Study Groups

- Collaborate with Peers: Forming study groups can facilitate learning, as discussing problems with peers can offer new perspectives and insights.
- Teach Others: Explaining concepts to someone else can reinforce your own understanding.

Implications of Test Results

The results of college math assessment tests can have significant implications for students:

1. **Course Placement:** Based on the results, students may be placed in a variety of math courses, ranging from remedial classes to advanced calculus. This placement can impact their overall academic trajectory.
2. **Academic Confidence:** A high score can lead to increased confidence, while a low score may result in feelings of anxiety or inadequacy. It is essential for students to understand that these tests are just one measure of their abilities.
3. **Advising and Support:** Many colleges provide academic advising based on assessment test results. Advisors can help students create a plan that addresses their strengths and weaknesses.
4. **Impact on Financial Aid:** In some cases, placement in remedial courses may affect a student's eligibility for certain financial aid packages that require a specific credit load.

Conclusion

In conclusion, college math assessment tests are vital tools for both students and institutions. They facilitate appropriate course placement, identify skill gaps, and streamline the academic journey. Understanding the structure, content, and preparation strategies for these tests can empower students to achieve their best possible outcomes. By approaching the assessment with diligence and a positive attitude, students can set themselves up for success in their college mathematics courses and beyond.

Frequently Asked Questions

What topics are typically covered in a college math assessment test?

College math assessment tests usually cover topics such as algebra, geometry, trigonometry, and precalculus. Some tests may also include sections on statistics and calculus.

How can I prepare for a college math assessment test?

To prepare for a college math assessment test, you can review key math concepts, practice with sample questions, use online resources and study guides, and consider taking a prep course if available.

What is the purpose of a college math assessment test?

The purpose of a college math assessment test is to evaluate a student's math skills and knowledge to determine appropriate course placement and ensure they are ready for college-level math courses.

college **school** **institute** _

college school institute “ ” college “ ” university college ...

College, University, Institute _

College, University, Institute College college 2000-4000

(Imperial College London) -

offer home office Imperial college. "Our policy is to issue maximum one year visa at a time for college students." ...

university college -

college () college university Liberal arts colleges (“ ” “ ”) ...

University, College, Institution, School,

University College Institution School

college -

Nov 24, 2024 · college College Colleg College

School College _

Oct 24, 2024 · School College “ ” “School” “College” ...

junior college _

Jun 11, 2024 · junior college

college colleague _

college colleague college colleague college colleague ...

college -

Mar 24, 2023 · College “ ”

college school institute _

college school institute “ ” college “ ” university ...

College, University, Institute _

College, University, Institute College college 2000-4000 ...

(Imperial College London) -

offer home office Imperial college. ...

Master the college math assessment test with our expert tips and strategies. Boost your confidence and score higher! Learn more to ace your exam.

[Back to Home](#)