Testing Requirements

The following items are required to take the Math Assessment test:

- A valid photo identification card, such as a driver's license, SMC student ID card, high school ID card, passport, resident alien ID card, or a military ID card.

- Your Santa Monica College six-digit student ID number

  *If you are not a current SMC student, a testing fee will be issued ($20 per test).

Testing Hours

For latest testing hours please go to:
www.smc.edu/assessment
or call
310-434-8040

Dates and times subject to change.
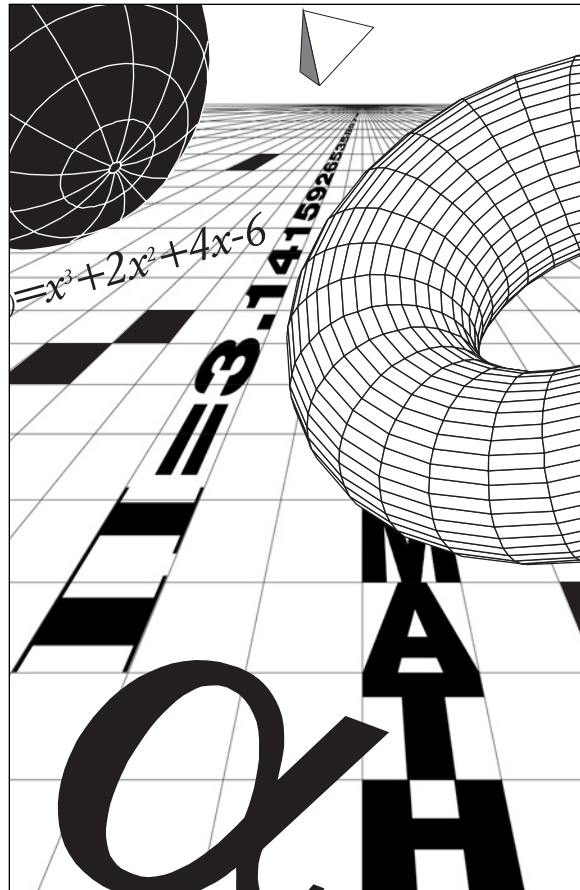*We are closed on all major holidays.*

SANTA MONICA COLLEGE

Assessment Center

Santa Monica College
1900 Pico Blvd
Santa Monica, CA 90405

Phone: 310-434-8040
Fax: 310-434-8019

http://www.smc.edu/assessment

Math Assessment Test Samples

"Taking each day one test at a time…"

Santa Monica College Assessment Center

Information: 310-434-8040
www.smc.edu/assessment

General Assessment Information

• HOW DO I TAKE THE ASSESSMENT?

Assessment is conducted on a walk-in basis, first come, first served. Please note that during heavy testing periods there will be an extensive wait. Plan accordingly! You may contact the Assessment Center at (310) 434-8040 for testing hours.

• HOW LONG WILL THE ASSESSMENT TAKE?

Because the tests are adaptive to your skills, the Math test may take up to one hour to complete.

• COMPUTERIZED TESTING

We currently offer computerized English, ESL, and Math tests. However, under some circumstances you may be asked to take a paper-and-pencil test instead. For computer delivered tests, you will use either the keyboard or the mouse to enter your answers and supply other information. A Test Proctor will always be present should you have any questions or problems.

• ADAPTIVE TESTING

Each test is adaptive. This means that the computer automatically determines which questions are presented to you based on your responses to prior questions. This technique selects just the right questions to ask without being too easy or too difficult. Each test is untimed so that you can give each question as much thought as you wish. However, once you have selected and confirmed your answer, you cannot return to that question.

• ANSWERING THE QUESTIONS

Each test consists of 12 to 15 questions. The questions appear one at a time on the computer screen. Most questions are multiple choice, and all you will need to do is use the "Enter" key or mouse to select an answer.

When you have completed the question and confirmed your answer, a new screen will appear with your next question.

• WHEN AND WHERE CAN I GET MY RESULTS?

Assessment results are usually available as soon as you complete your test. You may also be directed to return at a later time if technical difficulties are experienced, in which case you may pick them up at the Assessment Center (LA-109). Please note that your scores may not be input into our computer system for up to 48 hours. Be sure to have your copy when you meet with a counselor.

• ABOUT THE MATH TEST

The Math test consists of five sub-tests: Numerical Skills/Pre-Algebra, Algebra, College Algebra, Geometry, and Trigonometry. Every student starts with the Algebra subtest and depending on the accuracy of their answers they may proceed to a higher level or branched down to a lower level. Once you have answered a sufficient number of questions successfully, you will obtain a placement recommenda-tion. (Note that under some circumstances you may be given a paper-and-pencil test instead of the computerized test). Access to calculators will be granted, however, you may not bring your own.

Math Test Samples

Numerical Skills/Pre-Algebra Test

Averages: Means, Medians, and Modes

1. What is the average (arithmetic mean) of 8, 7, 7, 5, 3, 2, and 2?
   - A. $3\frac{4}{7}$
   - B. $4\frac{5}{6}$
   - C. $4\frac{6}{7}$
   - D. 5
   - E. $6\frac{4}{5}$

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-yard length of cloth remain after 3 pieces, each $3\frac{1}{2}$ yards long, and 5 pieces, each $2\frac{1}{4}$ yards long, are removed?
   - A. $2\frac{1}{4}$
   - B. $4\frac{1}{4}$
   - C. $4\frac{5}{8}$
   - D. $10\frac{1}{4}$
   - E. $10\frac{5}{8}$

Percentages

4. Phillip 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 Phillip charged on his second bill?
   - A. $8.76
   - B. $7.96
   - C. $7.60
   - D. $7.24
   - E. $6.63

Algebra Test

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

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. $6x^2 - 13x - 6$

Substituting Values into Algebraic Expression

3. If $x = -1$ and $y = 2$, what is the value of the expression $2x^3 - 3xy$?
   - A. 8
   - B. 4
   - C. -1
   - D. -4
   - E. -8

Rational Expressions

4. For all $r \neq \pm 2, \dfrac{r^2 - 5r + 6}{r^2 - 4} = ?$
   - A. $\frac{r-3}{r+2}$
   - B. $\frac{r-2}{r+2}$
   - C. $\frac{r-2}{r+3}$
   - D. $\frac{r+3}{r-2}$
   - E. $\frac{r+3}{r+2}$

Linear Expressions 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. $y = \frac{3}{2}x + \frac{11}{4}$
   - E. $y = -x + 4$

College Algebra Test

Complex Numbers

1. For, $i = \sqrt{-1}$ if $3i(2 + 5i) = x + 6i$, then $x = ?$
   - A. -15
   - B. 5
   - C. $5i$
   - D. $15i$
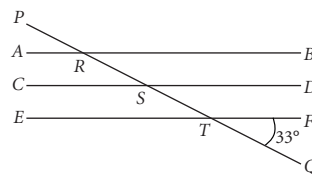   - E. $27i$

Functions

2. If $f(4) = 0$ and $f(6) = 6$, which of the following could represent $f(x)$?
   - A. $\frac{2}{3}x - 4$
   - B. $x + 2$
   - C. $x - 4$
   - D. $\frac{3}{2}x + 6$
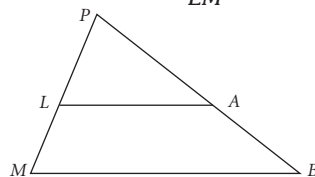   - E. $3x - 12$

Geometry Test

Angles

1. In the figure below $\overline{AB}$, $\overline{CD}$, and $\overline{EF}$ are parallel, and $\overline{PQ}$ intersects all 3 lines at points R, S, and T, respectively. If the measure of $\angle QTF$ is 33°, what is the measure of $\angle PRB$?
   - A. 33°
   - B. 57°
   - C. 66°
   - D. 123°
   - E. 147°

Triangles

2. In $\triangle MPB$ below, $\overline{LA}$ ‖ $\overline{MB}$. If $\dfrac{PL}{LM} = \dfrac{5}{3}$, then $\dfrac{PB}{PA} = ?$
   - A. $\frac{5}{8}$
   - B. $\frac{2}{3}$
   - C. $\frac{8}{5}$
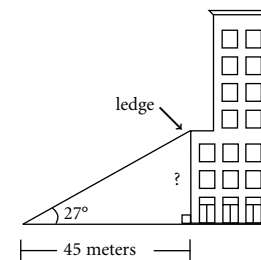   - D. $\frac{5}{3}$
   - E. $\frac{8}{3}$

Trigonometry Test

Trigonometric Function and Identities

1. Which of the following is equivalent to $\dfrac{1 - \cos^2\theta}{\cos^2\theta}$?
   - A. $\sec^2\theta$
   - B. $(\csc^2\theta) - 1$
   - C. $\tan^2\theta$
   - D. $\sin^2\theta$
   - E. $-\dfrac{1}{\sin^2\theta}$

Right-Triangle Trigonometry

2. From a point on the ground the angle of elevation to a ledge on a building is 27°, and the distance to the base of the building is 45 meters. How many meters high is the ledge?
   - A. $\dfrac{45}{\sin 27°}$
   - B. $\dfrac{45}{\tan 27°}$
   - C. $45 \sin 27°$
   - D. $45 \cos 27°$
   - E. $45 \tan 27°$

Answers to Test Samples

- **Numerical Skills/Pre-Algebra Test**
  Answers: **1.** C **2.** C **3.** A **4.** B

- **Algebra Test**
  Answers: **1.** D **2.** D **3.** B **4.** A **5.** E

- **College Algebra Test**
  Answers: **1.** A **2.** E

- **Geometry Test**
  Answers: **1.** E **2.** C

- **Trigonometry Test**
  Answers: **1.** C **2.** E