San Diego Community College District
CITY, MESA AND MIRAMAR COLLEGES

Sample Questions
Mathematics Assessment Tests

• Choosing the appropriate assessment test is important!
• There are two mathematics assessment tests available, Algebra Readiness and Intermediate Algebra.
• Your own mathematical background and your performance on these sample questions are intended to help you decide which math assessment test you need to take.
• If you can answer most of the sample questions correctly, then you should take the corresponding assessment test.
• Each of the sample tests includes questions similar to those found on the actual assessment test.

ALGEBRA READINESS TEST (Test #1)

The Algebra Readiness Test is a test of content from arithmetic including fractions, decimals and percents, simple algebra and word problems.

A passing score on the Algebra Readiness Test will place students into Math 95, Elementary Algebra. A low score on the Algebra Readiness Test will place students into Math 32, 33, 35.

The following five questions are a sample of the types of questions found on the Algebra Readiness Test. If you can answer most of the questions on this sample test, then you should take the Algebra Readiness test.

1. \[2 - 5 + 6 - 4 =\]  
   (A) 5  (B) -1  (C) 17  (D) 1

2. \[\frac{1}{3} + \frac{1}{2} =\]  
   (A) \frac{2}{5}  (B) \frac{2}{6}  (C) \frac{1}{5}  (D) \frac{5}{6}

3. What is 45% of 500?  
   (A) 2.2  (B) 22.5  (C) 225  (D) 2250

4. If \(x = 4\), then \(6 + 2x =\)  
   (A) 14  (B) 48  (C) 12  (D) 2250

5. The area of a rectangle is 36. If the length is 9, what is the perimeter?  
   (A) 4  (B) 13  (C) 26  (D) 36

ANSWER KEY: Sample Algebra Readiness Test
The Intermediate Algebra Diagnostic Test is a test of intermediate algebra content such as linear equations and inequalities, quadratic equations, graphing, exponents and radicals, functions and logarithms.

A passing score on the Intermediate Algebra Diagnostic Test will place students into Math 096, 104, 107, 116, 118, 119, 210A, or into any course which specifies AMath level 5" as a prerequisite.

The following eight questions are a sample of the types of questions you can expect on the actual Intermediate Algebra Diagnostic Test. If you can answer most of the questions on this sample test, then you should take the Intermediate Algebra Diagnostic Test.

1. \( \frac{c}{d} + 2 = \)
   (A) \( \frac{c + 2d}{d} \) (B) \( \frac{c + 2}{d + 2} \) (C) \( \frac{c + 2}{d} \) (D) \( c + 2d \) (E) \( c \)

2. \( \frac{c - d}{d} - \frac{1}{c} = \)
   (A) \( \frac{c - d}{dc} \) (B) \( \frac{dc}{c - d} \) (C) \( dc \) (D) \( -dc \) (E) \( \frac{1}{dc} \)

3. \( \sqrt{3} + \sqrt{27} = \)
   (A) 6 (B) \( 3\sqrt{3} \) (C) \( 4\sqrt{3} \) (D) \( 10\sqrt{3} \) (E) \( \sqrt{30} \)

4. If \( 3x + 2y = 8 \) and \( y = x - 1 \), then \( x = \)
   (A) -6 (B) \( 6/5 \) (C) \( 7/5 \) (D) \( 9/5 \) (E) 2

5. One of the roots of \( (x-2)(3x+4)=0 \) is
   (A) -2 (B) \( -4/3 \) (C) \( -3/4 \) (D) \( 3/4 \) (E) \( 4/3 \)

6. Which of the following is an equation of a line with slope 3 and y-intercept of -4?
   (A) \( y = 1/3 x - 4 \) (B) \( y = 3x - 4 \) (C) \( y = 3x + 4 \) (D) \( y = 4x - 3 \) (E) \( y = 4x + 3 \)

7. If \( \log_{10}x + \log_{10}y = 3 \), then \( xy = \)
   (A) 0.001 (B) \( 1.0 \) (C) \( 10 \) (D) \( 100 \) (E) \( 1000 \)

8. A student who correctly answered 72 questions on a test received a score of 75%. How many questions were on the test?
   (A) 54 (B) \( 72 \) (C) \( 75 \) (D) \( 96 \) (E) \( 104 \)

**ANSWER KEY:** Sample Intermediate Algebra Diagnostic Test