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Prepare for the exam

by reviewing the mathematics you learned in high school. The test is intended to help us place you in the course that best meets your needs. Help us help you!

A small booklet available in the UVI bookstore called "***Show them you know some math! Preparing for the Mathematics Placement Test at UVI"*** can guide your review as you prepare for the test. The same information is available on line at
http://www.uvi.edu/sites/uvi/Publications/Show_them_you_know_some_math.pdf

Mathematics will provide important tools for solving real problems in your chosen profession as well as in your academic studies. We want you to have a strong foundation on which to build your skill using these tools.

The diagnostic test determines whether you should take MATH 023, or move into MATH 024, or go directly to MATH 140 or 143. MATH 023 and 024 are non-credit courses that help you prepare for mathematics at the university level. MATH 140 and 143 are College Algebra courses for credit toward graduation.

Department of Mathematical Sciences
College of Science and Mathematics
University of the Virgin Islands

Revised May 2012

MATHEMATICS
DIAGNOSTIC AND PLACEMENT
TESTING

If you are a new UVI student and your SAT-Math score is below 490, **you <u>must</u> be present for the Mathematics Placement testing** before the start of your first semester for diagnosis of your mathematical needs.

See schedule for date, time and location. Please bring photo ID.

MATH 023 and 024 are non-credit courses intended to prepare you for college mathematics. If, however, you received adequate preparation in high school, you should not waste your education dollars by repeating your high school mathematics.

Please do your best work on the Mathematics Placement Diagnostic to ensure that you are correctly placed. It will take about one hour to complete. **You may only take the placement test once.**

Questions on the diagnostic placement test to determine readiness for MATH 024 include operations on fractions, decimals and integers and problems involving percents and ratios. You will also be asked to solve equations and simplify algebraic expressions.

Some questions are computational. Examples:
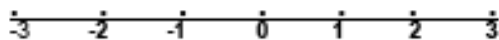
$$\frac{2}{3} - \frac{3}{4} = ?$$

$$-12 + 18 = ?$$

Solve $2(3 - x) = 7 - x$

Evaluate 4^3

Other questions require analysis of a situation. In general, you will be expected to show your work.

You will be asked questions intended to show that you understand the meaning of numbers. For example, you might be asked to place the number $\frac{3}{2}$ in the correct place on a number line like this one:

You will be asked to graph points on an x-y coordinate plane and to interpret information from graphs.

You may be asked to demonstrate understanding of area and perimeter of geometric figures.

The diagnostic will allow you to move directly to MATH 140 or MATH 143 if you are proficient with all of the above and also show that you can:

- solve systems of linear equations;
- solve quadratic equations;
- solve equations that contain fractions;
- graph a line in a coordinate plane and find the slope of a line;
- simplify expressions involving exponents and radicals;
- do operations on polynomials and fractions.

Some questions require algebraic computations. For example,

Multiply: $(2x - 7)(x + 3)$

Simplify: $\dfrac{6x^3}{x}$

Write $2x^{-1}$ with no negative exponent.

Solve $x^2 + x - 6 = 0$

You may be asked to graph an equation like $y = \dfrac{2}{3}x - 6$. In other questions, you might be given the graph of a line or its equation and asked to give information about the line such as its slope or its intercepts.

Calculators: Calculators are not permitted on either of the two sections of the placement exam.

This means that you will be required to perform simple computations with integers, decimals, and fractions without the use of a calculator. These computations show that you understand the meaning of numbers like negative integers and fractions, and that you also understand how the operations work.

Note: You will <u>need</u> a graphing calculator for MATH 023, MATH 024, MATH 140, and for MATH 143. We recommend the TI-84 or TI-84 Plus.