



DOMA Pre-Algebra Assessment Report

Confidential Information

Student: ~~XXXXXXXXXX~~

Assessment Date:

Grade:

Age: yrs months

DOMA (Diagnostic Online Math Assessment) Pre-Algebra Overview

DOMA Pre-Algebra was built on the Let's Go Learn OAASIS™ platform, which uses adaptive assessment technology to intelligently decide which specific test items will be given to each student. Based on individual student performance during the assessment, *DOMA*, with OAASIS's help, adjusts in difficulty, item selection, and construct selection. These adaptations allow *DOMA* to measure a wide range of student abilities efficiently and accurately.

Part I: Pre-Screening: This section presents students with questions aligned to most of the 14 Pre-Algebra constructs that have been determined to encompass the prerequisite knowledge necessary for success in Algebra I. The 14 Pre-Algebra constructs are aligned to NCTM standards. The majority of the questions in this section require students to key in answers, thus reducing the chance that they will guess correct answers, which can skew results. Based on the Pre-Screening results, students may test out of constructs on which they have demonstrated mastery. Constructs in Part II of this assessment may be skipped or abbreviated based on performance.

Part II: Pre-Algebra Constructs: This part of *DOMA* contains the detailed test items that make up each of the 14 Pre-Algebra constructs. Construct selection will vary depending on the student's performance. A high error* rate may terminate a construct before a student has completed all of its questions.

Part III: Foundation Skills: If students' errors demonstrate a possible deficit in multiplication math facts or reading comprehension, this section is given. Otherwise, it will be skipped.

*See "Interpreting Pre-Algebra Scores." www.letsgolearn.com/media/PDFs/InterPreA.pdf

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Diagnostic Summary - (out of 14 constructs mastered)		
Part I - Prescreening	% of Part 2 skipped	Results
Prescreening		Coordinate Graphing
Part II - Pre-Algebra	Results	Linear Func. & Exte. Pat.....
Integer Operations		Simple Equations.....
Fraction Operations		Geometry.....
Decimal Operations		Interpreting Data.....
Comparing & Converting		Simple Probability.....
Estimating & Rounding.....		Part III - Foundation Skills % Correct
Evaluating Exponents.....		Timed Multi. Math Facts
Ratios and Proportions.....		Untimed Mult. Math Facts
Simplifying Expressions.....		Reading Comp.(5th gr level) ..

Test Question Legend

+ **Tested Correctly**
 - **Tested Incorrectly**
 N/T **Not Tested**

Mastery of Construct*
Partial Mastery of Construct*
Non-mastery of Construct*

* Mastery of a construct is determined by the student either correctly answering the corresponding pre-screening question or correctly answering 75% or more of the questions in the full construct set. Partial mastery is determined by full construct testing and a percent correct of greater than 50% but less than 75%.

Construct 1: Integer Operations

Test Question	Results
Adding two positive numbers.....	
Subtracting two positive numbers.....	
Multiplying two positive numbers.....	
Adding a positive and a negative.....	
Adding two negative numbers	
Subtracting a negative and a positive.....	
Subtracting two negative numbers	
Dividing two negative numbers.....	
Multiplying a positive and a negative.....	
Dividing a positive and a negative.....	
Absolute value.....	

Subtracting decimals, different place values
Multiplying decimals (vertically written)
Multiplying decimals (horizontally written)
Dividing a whole number by a whole number (decimal answer)
Dividing a whole number by a decimal.....
Dividing a decimal by a decimal

Construct 4: Comparing and Converting

Test Question	Results
Converting a fraction to a decimal.....	
Converting a decimal to a fraction.....	
Converting a decimal to a percent.....	
Converting a percent to a decimal.....	
Converting a percent to a fraction	
Converting a fraction to a percent	
Ordering fractions.....	
Ordering mixed numbers.....	
Ordering fractions, decimals, and percents.....	
Ordering fractions, decimals, and percents.....	

Construct 2: Fraction Operations

Test Question	Results
Fraction identification.....	
Simplifying fractions.....	
Adding fractions with the same denominator.....	
Subtracting fractions with the same denominator....	
Adding fractions with different denominators.....	
Subtracting fractions with different denominators....	
Multiplying fractions	
Dividing fractions	
Adding mixed numbers with regrouping	
Subtracting mixed numbers with regrouping	
Multiplying mixed numbers	
Dividing mixed numbers	

Construct 5: Estimating and Rounding

Test Question	Results
Estimating measurement.....	
Estimating measurement (metric).....	
Rounding whole numbers (hundreds)	
Rounding whole numbers (ten-millions)	
Rounding decimals (hundredths).....	
Rounding decimals (ten-thousandths).....	

Construct 3: Decimal Operations

Test Question	Results
Adding decimals, same place values	
Adding decimals, different place values	
Subtracting decimals, same place values	

Construct 6: Evaluating Exponents

Test Question	Results
Knowledge of base and exponent	
Definition of base.....	
Definition of exponent.....	
Evaluating exponents	
Scientific notation (converting to)	
Scientific notation (converting from)	

Construct 7: Ratios and Proportions

Test Question	Results
Writing as a ratio from a word problem.....	
Solving proportions (using : symbol)	
Solving proportions (using fractions)	
Solving proportions, word problem.....	
Rewriting a proportion as a percent.....	

Construct 8: Simplifying Expressions

Test Question	Results
Order of operations (simple).....	
Order of operations (harder).....	
Parentheses	
Simplifying with variables	
Simplifying with variables and parentheses.....	
Simplifying with variables and exponents.....	

Construct 9: Coordinate Graphing

Test Question	Results
Knowledge of quadrants.....	
Knowledge of quadrants.....	
Point identification	
Point identification	
Knowledge of line equations.....	
Knowledge of slope	
Knowledge of y-intercept.....	
Knowledge of line equations.....	

Construct 10: Linear Functions and Extending Patterns

Test Question	Results
Number patterns.....	
Number patterns as a data chart.....	
Complex number patterns	
Identifying the graph of an input/output table	
Solving for one variable, basic equation.....	
Solving for one variable, fraction in equation.....	

Solving for one variable, harder equation.....	
Completing an input/output for a function.....	

Construct 11: Simple Equations

Test Question	Results
Solving one-step equations, add/sub	
Solving one-step equations, add/sub	
Solving one-step equations, mult/div.....	
Solving one-step equations, ratio	
Solving two-step equations.....	
Solving two-step equations, harder	

Construct 12: Geometry

Test Question	Results
Finding perimeter of a rectangle.....	
Finding area of a square.....	
Finding area of a rectangle.....	
Finding missing angle measurement of a triangle...	
Finding area of a triangle.....	
Solving a triangle	
Finding missing angle measurement of a circle	
Finding circumference of a circle.....	
Finding area of a circle	
Finding surface area of a rectangular prism.....	
Finding volume of a cylinder.....	

Construct 13: Interpreting Data

Test Question	Results
Reading a bar graph.....	
Reading a bar graph and finding a range.....	
Reading a pie graph	
Reading a table, performing a calculation	
Reading a table, drawing a conclusion.....	
Finding the sample space of a data set.....	
Finding an average of a data set.....	
Finding the mean of a data set.....	
Finding the median of a data set	
Finding the mode of a data set.....	

Construct 14: Simple Probability

Test Question	Results
Probability rule.....	
General rule of a coin flip.....	
Probability of a coin flip.....	
Probability of dice	
Simple probability	
Simple probability	
Simple probability	