

Grade 7 (H) - Math Semester 1 Exam Study Guide

Subject: Math

Date & Time of Exam: Tuesday, December 11th, 2018

Duration of Exam: 60 minutes

You are expected to study from: All materials mentioned

1. Textbook/Workbooks:

Chapters	Topic	Pages
1.1	Words and Expressions. To translate phrases into numerical expressions.	5-10
1.2	Variables and Expressions. To translate verbal phrases into algebraic expressions.	11-17
1.3	Properties. To identify and use properties of addition and multiplication.	18-24
2.1	Integers and absolute value. To compare and order integers.	61- 67
2.2	Adding Integers To add two and three integers.	69-74
2.3	Subtracting Integers To subtract two and three integers	75-80
2.4	Multiplying Integers To multiply integers	84-90
2.5	Dividing Integers To divide integers	91-97
2.6	Graphing in 4 Quadrants Graph points on a coordinate plane.	98-102
3-1	Fractions and Decimals Write fractions as terminating or repeating decimals Compare fractions and decimals	123-129
3-2	Rational Numbers Write rational numbers as fractions Identify and classify rational numbers	130-135

3-3	<p style="text-align: center;">Multiplying Rational numbers Multiply positive and negative fractions Evaluate algebraic expressions with fractions</p>	136-142
3-4	<p style="text-align: center;">Dividing Rational Numbers Dividing positive and negative fractions using multiplicative inverses Dividing algebraic fractions</p>	143-148
3-5	<p style="text-align: center;">Adding and Subtracting Like Fractions Add rational numbers with common denominators Subtract rational numbers with common denominators</p>	149-154
3-6	<p style="text-align: center;">Adding and Subtracting Unlike Fractions Add unlike fractions Subtract unlike fractions</p>	155-160
4-1	<p style="text-align: center;">The Distributive Property Numerical Expressions Algebraic Expressions</p>	173-178
4-2	<p style="text-align: center;">Simplifying Algebraic Expressions Parts of Algebraic Expressions Simplify Algebraic Expressions</p>	180-185
4-3	<p style="text-align: center;">Solving Equations by Adding or Subtracting Solve equations by using Addition and Subtraction Properties of Equality Translate verbal sentences into equations.</p>	186-191
4-4	<p style="text-align: center;">Solving Equations by Multiplying or Dividing Solve equations by using the Division Property of Equality. Solve equations by using the Multiplication Property of Equality.</p>	193-198
4-5	<p style="text-align: center;">Solving Two-Step Equations Solve two-step equations Solve real-world problems involving two-step equations.</p>	201-206

<p>1. Types of Questions:</p> <ul style="list-style-type: none"> a. Word problems. b. Multiple Choices. c. Calculations. d. Definitions. e. Matching f. True or False 	<p>2. You are expected to:</p> <ul style="list-style-type: none"> a) Review pop quizzes. b) Review quizzes. c) Review homework. d) Review word problems. e) Review students' notes. f) Word problem booklet. g) IXL: G1, G2, G3, G4, G9, G10, G12, G13, R10, R14, R16
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Key words:

Integer.	A whole number that can be positive, negative or zero.
Opposites.	Two numbers of which the sum is zero. Additive inverse
Absolute value	Distance of a number from 0.
Sum	The result of an addition problem.
Difference	The result of a subtraction problem.
Product	The result of a multiplication problem.
Quotient	The result of a division problem.
Order of operations	PEMDAS; rules to follow when expressions have more than one operation.
Variable	is used for the unknown in an algebraic expression.
Numerical phrase/expression	a mathematical sentence involving only numbers and one or more operation symbols.
Algebraic phrase/expression	An expression built up from integer constants, variables, and the operations
Properties	Commutative property / Associative property Additive identity / Multiplicative identity
Graphs	Origin / x-axis and y-axis /coordinates
Terminating decimals	A decimal that ends. A decimal with a finite number of digits.
Repeating decimals.	a decimal that has a digit, or a block of digits, that repeat over and repeatedly without ever ending.

Bar notation.	The process of writing repeating decimals or repeating pattern of digits by using a bar.
Rational numbers.	A number that can be expressed as a fraction
Identify and Classify rational numbers.	N – Natural numbers W – Whole numbers Z – Integers Q – Rational numbers
inequality signs	(< ; > ; =)
Like	Fractions with the same denominator
unlike fractions	Fractions with different denominators
Mixed Numbers	A Number made up of a fraction and a whole number
Improper fractions	A fraction whose denominator is larger than the numerator
Numerators	The top number of a fraction
Denominators	The bottom number of a fraction
Multiplicative inverse	numbers that when multiplied together equal 1
Evaluate	Find the value of an expression
Distributive Property	To multiply a sum or difference by a number, multiply each term inside the parentheses by the number outside the parentheses.
Algebraic Expressions	Definition of: <ul style="list-style-type: none"> - Term: A <u>term</u> can be a number, a variable, or a product of numbers and variables. Terms in an expression are separated by + and –. - Constant: A term without a variable. - Like Term: Terms that contain the same variables. - Coefficient: The numerical part of a term that contains a variable.
Equation	A mathematical sentence that contains equals sign (=).