

Name: _____

Grade 8 Math Midyear Exam

Thursday, February 2nd

Use this checklist to help you study for the exam. Not every topic on this list will end up on the exam, and some questions will combine a few of these topics. This list is a guide, and not an official outline. If you have a good understanding of all these topics, you should do very well!

Topic	I know this!	It's on my memory-aid
Integers		
Understanding whether a number is greater than or less than another number (including negative numbers)		
How to add with negative numbers		
How to subtract with negative numbers		
Ratios, Rates, and Proportions		
What is a ratio		
Reducing and expanding ratios (using a common factor and divide or multiply for the purpose of getting an equivalent ratio)		
How to solve a problem using rates (such as km/h, or \$/week)		
Solving a word problem using ratios		
Finding the ratio in a problem		
Recognizing the pattern in a proportional relationship		
Recognizing inverse proportionality in a table of values and on a graph		

Understanding if a relationship is proportional, or not		
Finding the unit rate to solve a given problem		
Fractions		
Expanding fractions (multiply both numbers by a common factor to obtain an equivalent fraction)		
Reducing fractions (divide both numbers by a common factor to obtain an equivalent fraction)		
Finding equivalent fractions		
Comparing fractions by finding a common denominator, converting to decimal or percent		
Finding part of a number, when given a fraction		
Adding fractions		
Subtracting fractions		
Multiplying fractions		
Dividing fractions		
Converting an improper fraction to a mixed number		
Converting a mixed number to an improper fraction		
Percent		
Converting a percent to a fraction, or decimal		
Converting a fraction to a percent		
Converting a decimal to a percent		
Finding the percent of a number		
Finding a number when given the percent		
Finding the price of an item after a discount		
Finding the price of an item after tax		
Finding the price of an item after a discount AND tax		

Finding the 100%		
Data Analysis		
What is the mean, how do you find it?		
What is the range, how do you find it?		
How do you read/find information on a bar graph, and a broken graph		
How do you read/find information on a line graph		
Representation of a situation		
What is a sequence?		
What is a term and how to find it using a table of values		
What is a rank and how to find it using a table of values		
How to find a rule in a table of value and apply it to a given situation		
Recognize and work with a cartesian plane, coordinates, origin and quadrants		
What is a variable and a constant?		
What is a dependent and independent variable		
Interpreting graphs		

Algebra		
Calculating the numerical value of algebraic expressions		
Addition and subtraction of algebraic expressions (simplifying/combining "like" terms)		
Finding the rule (algebraic expression) in a table of values		
Using the rule of a situation to answer questions		

Order of Operations
Solving an equation using the order of operations
Understanding of powers, square roots

Similar figures
Understanding concept of similarity
Identifying similar figures
Finding unknown measures using the properties of similar figures