New York State Next Generation Mathematics Learning Standards

New York State Next Generation Mathematics Learning Standards Grade 7 Crosswalk Ratio and Proportional Reasoning Cluster NYS P-12 CCLS NYS

New York State Next Generation Mathematics Learning Standards				
Grade 7 Crosswalk				
The Number System				
Cluster	NYS P-12 CCLS	NYS Next Generation Learning Standard		
Apply and extend previous understandings of operations with	7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a	NY-7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers. Represent addition and subtraction on a horizontal or vertical number line.		
fractions to add,	horizontal or vertical number line diagram .			
subtract, multiply and divide rational numbers.	7.NS.1a Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.	NY-7.NS.1a Describe situations in which opposite quantities combine to make 0.		
	7.NS.1b Understand <i>p</i>			

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Apply and extend	7.NS.2b Understand that integers can be divided,			
previous understandings	provided that the divisor is not zero, and every quotient			
of operations with	of integers (with non-zero divisor) is a rational number.			
fractions to add,	If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$.			
subtract, multiply and	Interpret quotients of rational numbers by describing			
divide rational numbers.	real-world contexts.			

New York State Next Generation Mathematics Learning Standards			
Grade 7 Crosswalk			
Expressions and Equations (Inequalities)			
Cluster	NYS P-12 CCLS	NYS Next Generation Learning Standard	
Solve real-life and mathematical problems	7.EE.4 Use variables to represent quantities in a realworld or mathematical problem, and construct simple	NY-7.EE.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities	
using numerical and	equations and inequalities to solve problems by	to solve problems by reasoning about the quantities.	
algebraic expressions, equations and	reasoning about the quantities.	<u>Note</u> : Solving equations that contain variables on both sides is not an expectation in grade 7.	
inequalities.			

New York State Next Generation Mathematics Learning Stand

New York State Next Generation Mathematics Learning Standards					
Grade 7 Crosswalk					
	Statistics and Probability				
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Draw informal comparative inferences about two populations.		NY-7.SP.1 Construct and interpret box-plots, find the interquartile range, and determine if a data point is an outlier.			
usout two populations.		Note: Students in grade 7 are <i>not</i> expected to <i>construct</i> box-plots that include outliers in the data, but students <i>are</i> expected to <i>interpret</i> box-plots that may contain outliers.			
	7.SP.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.	NY-7.SP.3 Informally assess the degree of visual overlap of two quantitative data distributions.			
	7.SP.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh grade science book are generally	NY-7.SP.4 Use measures of center and measures of variability for quantitative data from random samples or populations to draw informal comparative inferences about the populations. Note: Measures of center are mean, median, and mode. The measures of variation			

longer than the words in a chapter of a fourth grade

science book.

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Statistics and Probability				
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Investigate chance processes and develop,	7.SP.7a Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine	STANDARD REMOVED		
use and evaluate probability models.	probabilities of events. For example, if a student is selected at random from a class find the probability that Jane will be selected and the probability that a girl will be selected.			
	7.SP.7b Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, fin the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?	STANDARD REMOVED		
	7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	NY-7.SP.8 Find probabilities of compound events using organized list, sample space tables, tree diagrams, and simulation.		
	7.SP.8a Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.	NY-7.SP.8a Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.		