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 fractions to add, subtract, multiply and divide rational numbers.	**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 ~~diagram~~.	**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.
	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 *p*	

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

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Expressions and Equations (Inequalities)		
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Solve real-life and mathematical problems using numerical and algebraic expressions, equations and inequalities.	**7.EE.4** Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.	**NY-7.EE.4** Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. **Note: Solving equations that contain variables on both sides is not an expectation in grade 7.**

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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.** Note: Students in grade 7 are *not* expected to *construct* box-plots that include outliers in the data, but students *are* expected to *interpret* 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 longer than the words in a chapter of a fourth-grade science book.*	**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

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Statistics and Probability		
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Investigate chance processes and develop, use and evaluate probability models.	**7.SP.7a** Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine	