



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   |
|--|---|---|
| <b>Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers.</b> | <b>7.NS.1</b> 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 <del>diagram</del> .  | <b>NY-7.NS.1</b> 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. |
|  | <b>7.NS.1a</b> Describe situations in which opposite quantities combine to make 0. <i>For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.</i><br><b>7.NS.1b</b> Understand $p$ | <b>NY-7.NS.1a</b> Describe situations in which opposite quantities combine to make 0.   |

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| <p><b>Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers.</b></p> | <p><b>7.NS.2b</b> 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 <math>p</math> and <math>q</math> are integers, then <math>-(p/q) = (-p)/q = p/(-q)</math>. Interpret quotients of rational numbers by describing real-world contexts.</p> |                                       |



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Expressions and Equations (Inequalities)

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|--|--|--|
| <p><b>Solve real-life and mathematical problems using numerical and algebraic expressions, equations and inequalities.</b></p> | <p><b>7.EE.4</b> 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.</p> | <p><b>NY-7.EE.4</b> 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.<br/> <u>Note:</u> Solving equations that contain variables on both sides is not an expectation in grade 7.</p> |









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Statistics and Probability

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| <p><b>Draw informal comparative inferences about two populations.</b></p> |  | <p><b>NY-7.SP.1 Construct and interpret box-plots, find the interquartile range, and determine if a data point is an outlier.</b></p> <p><u>Note:</u> 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.</p> |
|   | <p><b>7.SP.3</b> Informally assess the degree of visual overlap of two <del>numerical</del> data distributions <del>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.</del></p> <p><b>7.SP.4</b> Use measures of center and measures of variability for <del>numerical</del> data from random samples to draw informal comparative inferences about two populations. <i>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.</i></p> | <p><b>NY-7.SP.3</b> Informally assess the degree of visual overlap of two <b>quantitative</b> data distributions.</p>  |
|   |  | <p><b>NY-7.SP.4</b> Use measures of center and measures of variability for <b>quantitative</b> data from random samples <b>or populations</b> to draw informal comparative inferences about the populations.</p> <p><u>Note:</u> Measures of center are mean, median, and mode. The measures of variation</p>  |



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| <p><b>Investigate chance processes and develop, use and evaluate probability models.</b></p> | <p><b>7.SP.7a</b> Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. <i>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.</i></p>   | <p><b>STANDARD REMOVED</b></p>   |
|  | <p><b>7.SP.7b</b> Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. <i>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?</i></p> | <p><b>STANDARD REMOVED</b></p>   |
|  | <p><b>7.SP.8</b> Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.</p>  | <p><b>NY-7.SP.8</b> Find probabilities of compound events using organized list, <b>sample space</b> tables, tree diagrams, and simulation.</p>   |
|  | <p><b>7.SP.8a</b> 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.</p>   | <p><b>NY-7.SP.8a</b> 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.</p> |

