

## Math 7 Expressions, Equations and Inequalities

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**Unit Overview:** Students formulate expressions, equations and inequalities in one variable and use them to solve problems. They use the arithmetic of rational numbers as they solve them. Students are expected to solve equations of the form  $px + q = r$  and  $p(x + q) = r$  fluently. They solve inequalities of the form  $px + q < r$  and  $px + q > r$  and graph the solution set.

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| 7.EE.B.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.   |
| 7.EE.B.4a  | Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$ where $p$ , $q$ and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. |
| 7. EE.B.4b | Solve word problems leading to inequalities of the form $px + q < r$ or $px + q > r$ where $p$ , $q$ and $r$ are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.  |