

## EE Expressions and Equations

- **7.EE.A Use properties of operations to generate equivalent expressions.**
  - **7.EE.A.1 Apply properties of operations to add, subtract, factor, and expand linear expressions with rational coefficients.**
    - [Multiply using the distributive property \(7-R.11\)](#)
    - [Write equivalent expressions using properties \(7-R.13\)](#)
    - [Add and subtract linear expressions \(7-R.14\)](#)
    - [Factors of linear expressions \(7-R.16\)](#)
    - [Identify equivalent linear expressions using algebra tiles \(7-R.17\)](#)
    - [Identify equivalent linear expressions I \(7-R.18\)](#)
    - [Identify equivalent linear expressions II \(7-R.19\)](#)
  - **7.EE.A.2 Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related.**
    - [Identify equivalent linear expressions: word problems \(7-R.20\)](#)
- **7.EE.B Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**
  - **7.EE.B.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.**
    - [Evaluate numerical expressions involving integers \(7-C.24\)](#)
    - [Maps with decimal distances \(7-E.10\)](#)
    - [Evaluate numerical expressions involving decimals \(7-E.11\)](#)
    - [Maps with fractional distances \(7-G.17\)](#)
    - [Evaluate numerical expressions involving fractions \(7-G.18\)](#)
    - [Evaluate numerical expressions involving exponents \(7-I.7\)](#)
    - [Multi-step word problems \(7-N.2\)](#)
    - [Evaluate linear expressions \(7-R.4\)](#)
    - [Evaluate multi-variable expressions \(7-R.5\)](#)
    - [Evaluate nonlinear expressions \(7-R.7\)](#)
  - **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.4.a Solve word problems leading to equations of the form  $px + q = r$  and  $p(x \div q) = r$ , 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.**
      - [Model and solve equations using algebra tiles \(7-S.3\)](#)
      - [Solve two-step equations \(7-S.6\)](#)
      - [Solve equations: word problems \(7-S.7\)](#)
      - [Solve equations involving like terms \(7-S.8\)](#)
      - [Solve equations: complete the solution \(7-S.9\)](#)
      - [Solve word problems involving two-variable equations \(7-U.4\)](#)

- **7.EE.B.4.b 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.**
  - [Solve one-step inequalities \(7-T.4\)](#)
  - [Graph solutions to one-step inequalities \(7-T.5\)](#)
  - [One-step inequalities: word problems \(7-T.6\)](#)
  - [Solve two-step inequalities \(7-T.7\)](#)
  - [Graph solutions to two-step inequalities \(7-T.8\)](#)
- **7.EE.B.4.c Extend analysis of patterns to include analyzing, extending, and determining an expression for simple arithmetic and geometric sequences (e.g., compounding, increasing area), using tables, graphs, words, and expressions.**
  - [Identify arithmetic and geometric sequences \(7-Q.1\)](#)
  - [Arithmetic sequences \(7-Q.2\)](#)
  - [Geometric sequences \(7-Q.3\)](#)
  - [Number sequences: mixed review \(7-Q.4\)](#)
  - [Number sequences: word problems \(7-Q.5\)](#)
  - [Evaluate variable expressions for number sequences \(7-Q.6\)](#)
  - [Write variable expressions for arithmetic sequences \(7-Q.7\)](#)