Common Core Correlation - Grade 6

Common Core Standards & Essential Skills Mathematics Software

This document outlines the correlations between the Common Core Standards for Grade 6 (Ratios & Proportional Relationships, The Number System, Expressions & Equations) and the Mathematics programs from Essential Skills Software. The Common Core Standards are noted on the left and are matched with the relevant Essential Skills program on the right. Where correlations are not exact, the difference is noted in brackets. **Essential Skills Mathematics programs cover 90% of the Grade 6 Common Core Standards for these three strands of the curriculum.**

Ratios & Proportional Relationships	
Common Core STANDARDS	**Essential Skills Software CORRELATING PROGRAMS**
1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	**Number Concepts Grade 6**
2. Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0, and use rate language in the context of a ratio relationship.	**Number Concepts Grade 6**
3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	**Number Concepts Grade 6**
The Number System	
1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.	**Number Concepts Grade 6**
2. Fluently divide multi-digit numbers using the standard algorithm.	**Math Operations Grade 6**
3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	**Number Concepts Grade 6**

4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor.	**Math Operations Grade 6**
5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.	**Math Operations Grade 6**
6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.	**Number Concepts Grade 6**
7. Understand ordering and absolute value of rational numbers.	
8. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	
Expressions & Equations	
1. Write and evaluate numerical expressions involving whole-number exponents.	**Math Operations Grade 6**
2. Write, read, and evaluate expressions in which letters stand for numbers.	**Math Operations Grade 6**
3. Apply the properties of operations to generate equivalent expressions.	**Math Operations Grade 6** **Number Concepts Grade 6**
4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them).	**Math Operations Grade 6**

5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	**Math Operations Grade 6**
6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	**Math Operations Grade 6**
7. Solve real-world and mathematical problems by writing and solving equations of the form x + p = q and px = q for cases in which p, q and x are all nonnegative rational numbers.	**Math Operations Grade 6**
8. Write an inequality of the form x > c or x < c to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form x > c or x < c have infinitely many solutions; represent solutions of such inequalities on number line diagrams.	**Number Concepts Grade 6**
9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.	**Math Operations Grade 6**