Correlation to the Common Core Standards

CCSS Standard	Description	Activities
3.MD.8	Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	Challenge 2
5.NF.4b	Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.	9-1
6.NS.6a	Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite.	3-4, Challenge 3
6.NS.7a	Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram.	11-3, 11-4, 11-5, 13-5
6.EE.1	Write and evaluate numerical expressions involving whole-number exponents.	7-3, 7-4
6.EE.2c	Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).	1-2b, 7-5, 8-1, 8-2, 8-3, 8-4, 12-1, 12-2, 12-3
6.EE.3	Apply the properties of operations to generate equivalent expressions.	13-4
6.EE.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.	2-2, 15-1, 15-2, 15-3, 16-1, 16-2
6.EE.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.	1-2a, 1-3, 2-1
6.EE.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.	14-1, 14-2, 14-3
7.RP.2d	Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.	19-1, 19-2, 19-3
7.NS.1b	Understand $p + q$ as the number located a distance $\|q\|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.	4-1, 4-2, 4-3
7.NS.1c	Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.	5-1, 5-2
7.NS.1d	Apply properties of operations as strategies to add and subtract rational numbers.	5-3

Correlation to the Common Core Standards (cont.)

CCSS Standard	Description	Activities
7.NS.2a	Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (–1)(–1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.	6-1, 6-2, 6-3, 6-4, 6-5, 9-4
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.	7-1, 7-2
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.	1-4, 1-5a, 1-5b
7.G.6	Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	Challenges 4, 6, 8, 9, 10, 12
8.EE.7b	Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.	2-3, 2-4, 2-5, Challenge 7
8.F.1	Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.	18-1
8.F.2	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	18-2
8.F.3	Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear.	18-3
A-SSE.2	Use the structure of an expression to identify ways to rewrite it.	Challenge 16
A-SSE.3	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	11-1, 11-2
A-APR.1	Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.	9-2, 9-3, 13-1, 13-2, 13-3
A-APR.7	(+) Understand that rational expressions form a system analagous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.	10-2, 10-3, 10-4, 17-1, 17-2, 17-3
F-IF.3	Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.	18-4, 18-5
Not correlated		1-1; Challenge 1; 3-1; 3-2; 3-3; Challenge 5; 9-5; 10-1; Challenges 11, 13, 14, 15, 17, 18, 19