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| **Common Core Strand** | **Cluster** | **Standard** | **Learning Targets**7th Grade Math Curriculum Map – 1st Quarter | **Resources** | **Vocabulary** |
| **The Number System** | **Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.** | 7.NS.1a 1. 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 diagram.a. Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged. | I can describe real world situations where opposite quantities have a sum of zero.  | Chapter 2: Integers  | integers rational numbers complex fractions absolute value  |
| 7.NS.1b 1. 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 diagram.b. 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. | I can use a number line to show understanding of integers.  | Chapter 2 IntegersChapter 3 : Rational Numbers | positive negative opposite additive inverse absolute value integer rational number  |
| **The Number System** | **Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.** | 7.NS.1c 1. 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 diagram.c. 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. | I can 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. | Chapter 2: Integers,Chapter 3: Rational Numbers | positive, negative, opposite, additive, inverse, absolute value, integer, rational number |
| 7.NS.1d 1. 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 diagram.d. Apply properties of operations as strategies to add and subtract rational numbers.. | I can apply properties of operations as strategies to add and subtract rational numbers.. | Chapter 1: Expressions and PatternsChapter 2: Integers | positive, negative, opposite, additive, inverse, absolute value, integer, rational number |
| **The Number System** | **Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.** | 7.NS.2a 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.a. 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. | I can 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. | Chapter 2: IntegersChapter 3: Rational Numbers  | integers, rational numbers, terminating decimal, repeating decimal |
| 7.NS.2b 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.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 p and q are integers, then –(p/q) = (–p)/q = p/(–q). Interpret quotients of rational numbers by describing real-world contexts. | I can 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. | Chapter 2: IntegersChapter 3: Rational Numbers  | integers, rational numbers, terminating decimal, repeating decimal |
| **The Number System** | **Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.** | 7.NS.2c 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.c. Apply properties of operations as strategies to multiply and divide rational numbers. | I can apply properties of operations as strategies to multiply and divide rational numbers. | Chapter 2: IntegersChapter 3: Rational Numbers  | integers, rational numbers, terminating decimal, repeating decimal |
| 7.NS.2d 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats. | I can convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats. | Chapter 2: IntegersChapter 3: Rational Numbers  | integers, rational numbers, terminating decimal, repeating decimal |
| 7.NS.3 3. Solve real-world and mathematical problems involving the four operations with rational numbers.1 | I can solve real-world and mathematical problems involving the four operations with rational numbers.1 | Chapter 2: IntegersChapter 3: Rational Numbers  | rational number, complex fraction |
| **Expressions and Equations** | **Use properties of operations to generate equivalent expressions.** | 7.EE.1 1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. | I can apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. | Chapter 1: Expressions and PatternsAdditional Lesson: 5 & 6p. 773-779: Factor linear expressions | linear expression, coefficient, like terms |
| **Expressions and Equations** | **Use properties of operations to generate equivalent expressions.** | 7.EE.2 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. For example, a + 0.05a = 1.05a means that “increase by 5%” is the same as “multiply by 1.05.” | I can use equivalent expression to understand the relationships between quantities.  | Chapter 1 | linear expression coefficient like terms  |
| **Expressions and Equations** | **Solve real-life and mathematical problems using numerical and algebraic expressions and equations.** | 7.EE.3 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. For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation. | I can solve real-world problems using rational numbers in any form, including those problems involving multiple steps.  | Chapter 2: IntegersChapter 3: Rational NumbersChapter 6: Percents | rational number, complex fraction |