|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Common Core Strand** | **Cluster** | **Standard** | **Learning Targets**  6th Grade Math Curriculum Map – 3rd Quarter | **Resources** | **Vocabulary** |
| **Expressions and Equations** | **Apply and extend previous understandings of arithmetic to algebraic expressions.** | 6.EE.1  1. Write and evaluate numerical expressions involving whole-number exponents. | I can.. - write numerical expressions involving whole number  exponents. (Ex. 3^4 = 3x3x3x3) - evaluate numerical expressions involving whole number exponents. (3^4 = 3x3x3x3 = 81) - solve order of operation problems that contain exponents. (Ex. 3+2^2 – (2+3) = 2) | Glencoe 1-3A  5-1A | base exponent powers perfect square square root radical sign numerical expression order of operations |
| 6.EE.2a  2. Write, read, and evaluate expressions in which letters stand for numbers. a. Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation “Subtract y from 5” as 5 – y. | I can… - use numbers and variables to  evaluate expressions. - translate written phrases into  algebraic expressions. - translate algebraic expressions  into written phrases. | Glencoe 5-1C, D | defining the variable |
| **Expressions and Equations** | **Apply and extend previous understandings of arithmetic to algebraic expressions.** | 6.EE.2b  2. Write, read, and evaluate expressions in which letters stand for numbers. b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms. | I can… - identify parts of an expression using mathematical terms (sum,  term, product, factor, quotient, coefficient). - identify parts of an expression as a single entity, even if not a monomial. | Glencoe 1-3A  5-1B  6-2B | base exponent powers perfect square, square root radical sign algebra variable algebraic expression evaluate term like terms constant coefficient division property of equality |
| **Expressions and Equations** | **Apply and extend previous understandings of arithmetic to algebraic expressions.** | 6.EE.2c  2. Write, read, and evaluate expressions in which letters stand for numbers. c. 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). For example, use the formulas V = s3 and A = 6 s2 to find the volume and surface area of a cube with sides of length s = 1/2. | I can… - substitute specific values for variables. - evaluate algebraic expressions including those that arise from real-world problems. - apply order of operations when there are no parentheses for expressions that include whole number exponents. | Glencoe 5-1B | algebra variable algebraic expression evaluate term like terms constant |
| 6.EE.3  3. Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y. | I can… - create equivalent expressions using the properties of operations  (e.g. distributive property,  associative property, adding like terms with the addition property or equality, etc.). - apply the properties of  operations to create equivalent expressions. | Glencoe 5-2A, B, C Additional Lesson 4 | properties equivalent expressions |
| **Expressions and Equations** | **Apply and extend previous understandings of arithmetic to algebraic expressions.** | 6.EE.4  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). For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for. | I can… - recognize when two expressions are equivalent. - prove (using various strategies) that two expressions are equivalent no matter what number is substituted. | Glencoe 5-2A, B, C | properties equivalent expressions |
| **Reason about and solve one-variable equations and inequalities.** | 6.EE.5 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. | I can… - recognize solving an equation or inequality as a process of answering  “which values from a specified set, if any, make the equation or inequality true?”. - use the solution to an equation or inequality to prove that the answer is correct. - use substitution to determine whether a given number in a specified set makes an equation or inequality true. | Glencoe 6-1A  7-2B | equation equals sign solve solution inequality |
| **Expressions and Equations** | **Reason about and solve one-variable equations and inequalities.** | 6.EE.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. | I can… - recognize that a variable can represent an unknown number, or, depending on the scenario/situation, any number in a specific set. - relate variables to a context. - write expressions when solving a real-world or mathematical problem. | Glencoe 5-1B, C, D  6-1D, F  6-2B, D | algebra variable algebraic expression evaluate term like terms constant defining the variable inverse operations subtraction property of equality addition property of equality coefficient division property of equality |
| **Expressions and Equations** | **Reason about and solve one-variable equations and inequalities.** | 6.EE.7 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. | I can… - define an inverse operation. - use inverse operations to solve one step variable equations. - apply rules of the form x + p = q and px = q, for cases in which p, q and x are all nonnegative rational numbers, to solve real world and mathematical problems. (There is only one unknown quantity). - develop a rule for solving one-step equations using inverse operations with  nonnegative rational coefficients. - solve and write equations for real-world mathematical problems containing one unknown. | Glencoe 6-1C, D, E, F  6-2 A, B, C, D | inverse operations subtraction property of equality addition property of equality |
| 6.EE.8 **Reason about and solve one-variable equations and inequalities.** 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. | I can… - identify the constraint or  condition in a real-world or  mathematical problem in order to set up an inequality. - recognize that inequalities of the form x>c or x<c have infinitely many solutions. - write an inequality of the form x>c or x<c to represent a constraint or condition in a real-world or mathematical problem. - represent solutions to inequalities or the form x>c or x<c, with infinitely many solutions, on thenumber line diagrams. | Glencoe 7-2A, B, D | inverse operations subtraction property of equality addition property of equality coefficient division property of equality |
| **Expressions and Equations** | **Represent and analyze quantitative relationships between dependent and independent variables.** | 6.EE.9 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. | I can… - define independent and dependent variables . - 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 (dependent) in terms of the other quantity (independent). - analyze the relationship between the dependent variable and independent variable using tables and graphs. - relate the data in a graph and table to the corresponding equation. Standard 6.G.1: Find area of right triangles, other triangles, special quadrilaterals | Glencoe7-1A, B, C, E, F' | coordinate plane origin x-axis y-axis ordered pair x-coordinate y-coordinate relation graph function, function table, function rule sequence term arithmetic sequence geometric sequence |