June 2016 – PAT Outcomes

Item Description
Apply knowledge of the exponent laws to represent a power in an alternate form
Apply knowledge of the role of parentheses to determine the repeated multiplication form of a given power
Determine the perimeter of a design composed of square shapes by calculating the square root of each given square's area, which is a perfect square number (Gr.8, N.1)
Determine the sum of two given powers with integral bases and whole number exponents
Identify the approximate location on a number line of the square roots of given rational numbers that are non-perfect square numbers (Gr.8, N.2)
Solve a given problem involving operations on rational numbers in decimal form
Apply the exponent laws to simplify a given expression involving powers
Evaluate given expressions by applying the exponent laws and the order of operations
Explain the difference between two given powers that have the base and the exponent interchanged
Apply knowledge of the order of operations to solve a problem
Apply the order of operations, including exponents, to verify and extend a numeric pattern
Compare and order rational numbers on a number line
Identify the first recorded error in a given incorrect simplification of an expression involving exponents
Solve a problem involving arithmetic operations on rational numbers (Gr.8, N.4)
Solve a multi-step problem by determining the square root of a given value, calculating a fraction of the square root, and then using this value in an operation
Solve a single variable linear inequality with rational coefficients (Gr.8, PR.2)
Translate a given problem into a single variable linear inequality and solve the inequality algebraically
Match equivalent polynomial expressions
Write a linear equation that represents a given context (Gr.8, PR.2)
Simplify a given polynomial expression (Gr.8, PR.2)
Identify the single variable expression that represents a given context
Identify the pair of expressions that do not represent like terms when one expression is represented symbolically and the other expression is represented pictorially
Match the given graph of a linear relation with its corresponding linear equation (Gr. 8, PR.1)
Match a linear equation to a pictorial pattern
Represent a given problem using a linear equation, and then solve the equation (Gr.8, PR.2)
Solve a given linear equation to determine the value of the variable (Gr.8, PR.2)
Graph four linear relations on a Cartesian plan to determine which two relations intersect at a given location (Gr.8, PR.1)

Translate a given problem into a single variable linear inequality
Solve a given problem by representing the problem as a linear equation and solving for the unknown variable (Gr.8, PR.2)
Determine the missing measure of a rectangular prism by dividing a given polynomial expression by a monomial
Solve a given problem by representing the problem as a linear equation and solving for the unknown variable (Gr.8, PR.2)
Match a graph to a corresponding equation of a linear relation
Create and solve a linear inequality that represents a given context
Use a linear equation to solve a given problem that involves a pattern presented in a table
Determine the relationship between angles inscribed in a circle using circle properties
Determine which objects in a given set of objects are similar to each other

Solve a given problem involving surface area of a composite 3-D object (Gr.8, SS.5)
Determine the location of a vertex of a 2-D shape so that the resulting 2-D shape is similar to a given 2-D shape
Determine the unknown value in a diagram involving similar triangles
Complete the construction of a 2-D shape on a Cartesian plane using integral ordered pairs and identify the shape's order of rotational symmetry (Gr.7, SS.4)
Identify the image of a given 2-D shape following a single transformation
Identify the location of one vertex on the enlarged image of a 2-D shape
Calculate the height of a given 2-D object given the measurements and scale factor of its image after an enlargement
Apply one or more circle properties to determine the distance between two points on a given circle diagram (Gr.8, SS.1)
Apply more than one circle property to solve a given problem

Identify the location of the vertices of a 2-D shape after completing a combination of transformations on the Cartesian plane (Gr.7, SS.4; Gr.7, SS.5)
Identify an assumption that was made in order to reach a given conclusion given the results of the survey
Determine the most appropriate sample for a given survey
Interpret the results of a survey to identify a valid generalization about the population of the survey
Identify the assumption that was made to reach the given conclusion based on a collection of data