Indiana Academic Standards	Content Connectors	Student Text	Practice Book	Teacher Resource Edition Activities & Projects
Numbers Sense, Expressions and Computation				
AI. RNE.2: Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.	AI.RNE.2.a.1: Identify the pattern for the sum or product for combinations of rational numbers.	AI A 3, 4 AI B 22, 23, 24, 25, 26	AI A 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 AI B 1, 22, 23, 24, 25, 26, 37, 91, 139, 140, 141, 142, 143, 144, 145, 146, 147, 159, 160, 161, 162, 163, 164, 165	AI A 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 AI B 5, 22, 29, 30
AI.RNE.3: Rewrite and evaluate numeric expressions with positive rational exponents using the properties of exponents.	AI.RNE.3.a.1: Use properties of integer exponents to produce equivalent expressions.	AI A 21, 22, 23, 24, 25, 27, 49, 50, 51, 52, 53, 54, 55, 61, 63, 97, 101, 102, 103, 104, 105, 111, 113, 114, 115, 151, 153, 156, 157, 158, 159, 160, 177 AI B 0	AI A 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 113, 157, 158, 159, 160, 177 AI B 0	AI A 21, 32 AI B 0
AI.RNE.4: Simplify square roots of non-perfect square integers and algebraic monomials.	AI.RNE.4.a.1: Solve equations using square root properties.	AI A 0 AI B 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186	AI A 0 AI B 177, 178, 179, 180, 181, 182, 183	AI A 0 AI B 0
Linear Equations, Inequalities, and Functions				
AI.F.1: Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. Understand that if f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. Understand that the graph of f is the graph of the equation y=f(x).	AI.F.1.a.1: Distinguish between functions and non-functions, graphs, or tables.	AI A 0 AI B 27, 28, 29, 30, 31, 41	AI A 0 AI B 27, 28, 29, 31, 32	AI A 0 AI B 0
AI.L.1: Understand that the steps taken when solving linear equations create new equations that have the same solution as the original. Solve fluently linear equations and inequalities in one variable with integers, fractions, and decimals as coefficients. Explain and justify each step in solving an equation, starting from the assumption that the original equation has a solution. Justify the choice of a solution method.	AI.L.1.a.1: Solve equations with one or two variables using equations or graphs.	AI A 17, 28, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 88, 89, 90, 92, 93, 94, 95, 96, 97, 98, 99 AI B 17, 18, 19, 20, 21, 24, 25, 26, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 51, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170	AI A 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 136, 137, 138, 139, 140, 146, 147, 148, 149, 150, 156, 157, 158, 159, 160, 165, 166, 167, 168, 169, 170, 179, 180 AI B 24, 25, 26, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 51, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 87, 88, 89, 90, 93, 94, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 157, 158, 159, 160, 163, 164, 165, 166, 167	AI A 13, 15 AI B 6, 8, 23, 24, 31, 32, 33, 34, 36
AI.L.11: Solve equations and formulas for a specified variable, including equations with coefficients represented by variables.	AI.L.11.a.1: Solve linear equations with 1 variable.	AI A 17, 28, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 88, 89, 90, 92, 93, 94, 95, 96, 97, 98, 99 AI B 17, 18, 19, 20, 21, 24, 25, 26, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 51, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170	AI A 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 136, 137, 138, 139, 140, 146, 147, 148, 149, 150, 156, 157, 158, 159, 160, 165, 166, 167, 168, 169, 170, 179, 180 AI B 24, 25, 26, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 51, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 87, 88, 89, 90, 93, 94, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 157, 158, 159, 160, 163, 164, 165, 166, 167	AI A 0 AI B 0

Indiana Academic Standards	Content Connectors			
Systems of Equations and Inequalities				
SEI.1: Understand the relationship between a solution of a pair of linear equations in two variables and the graphs of the corresponding lines. Solve pairs of linear equations in two variables by graphing; approximate solutions when the coordinates of the solution are non-integer numbers.	SEI.1.a.1: Identify the solution to a system of linear equations given a graph.	AI A 0 AI B 110, 111, 114, 115, 116, 120, 121, 122, 123, 124	AI A 0 AI B 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125	AI A 0 AI B 0
Quadratic and Exponential Equations and Functions				
AI.QE.3: Graph exponential and quadratic equations in two variables with and without technology.	AI.QE.3.a.1: Determine if the points lie on a graph of an exponential or quadratic function.	AI A 0 AI B 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172	AI A 0 AI B 157, 158, 159, 160, 163, 164, 165, 166, 167	AI A 0 AI B 0
AI.QE.6: Use the process of factoring to determine zeros, lines of symmetry, and extreme values in real-world and other mathematical problems involving quadratic functions; interpret the results in the real-world contexts.	AI.QE.6.a.1: Identify zeros of a quadratic function.	AI A 0 AI B 172, 173, 174, 181, 182, 183, 184	AI A 0 AI B 171, 172, 173, 174, 181, 182, 183, 184	AI A 0 AI B 0
AI.QE.7: Describe the relationships among the solutions of a quadratic equation, the zeros of the function, the x-intercepts of the graph, and the factors of the expression.	AI.QE.7.a.1: Identify zeros of a quadratic function.	AI A 0 AI B 172, 173, 174, 181, 182, 183, 184	AI A 0 AI B 171, 172, 173, 174, 181, 182, 183, 184	AI A 0 AI B 0

AI.DS.5: Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns (including joint, marginal, and conditional relative	AI.DS.5.a.1: Examine the study using categorical data.	AI A 0 AI B 164, 165	AI A 0 AI B 164, 165	AI A 0 AI B 8

* Represents standards that may be assessed during ISTAR Part 1 (Jan/Feb) and Part 2 (April/May).