| Community Consolidated School District 46 <br> 565 Frederick Road, Grayslake, IL 60030 |  |  |
| :---: | :---: | :---: |
| 23-24 Algebra Priority Standards <br> @ 2023 All rights reserved by CCSD 46. Do not copy without permission. |  |  |
| Trimester 1 | Trimester 2 | Trimester 3 |
| Seeing Structure in Expressions | Interpreting Functions | Seeing Structure in Expressions |
| Interpret parts of an expression, such as terms, factors, and coefficients. | 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. | Use the structure of an expression to identify ways to rewrite it. |
| Reasoning with Equations \& Inequalities | Graph square root, cube root, and absolute value functions. | Write expressions in equivalent forms to solve problems by factoring quadratic expression to reveal the zeros of the function it defines. |
| Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. | Building Functions | Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. |
| Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. | Identify the effect on the graph of replacing $f(x)$ by $f(x)+k$, $k f(x), f(k x)$, and $f(x+k)$ for specific values of $k$ (both positive and negative). | Reasoning with Equations \& Inequalities |
| Graph the solutions to a linear inequality in two variables on a coordinate plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. | Reasoning with Equations \& Inequalities | Solve quadratic equations by inspection (e.g., for $\mathrm{x} 2=$ 49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. |
| Explain why the $x$-coordinates of the points where the graphs of the equations $y=f(x)$ and $y=g(x)$ intersect are the solutions of the equation $f(x)=g(x)$. | Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. | Interpreting Functions |
| Creating Equations |  | For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities. |
| Create equations and inequalities in one variable. |  | Arithmetic with Polynomials \& Rational Expressions |
| Use equations and inequalities to to solve problems. |  | 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. |
| Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. |  | Understand the relationship between zeros and factors of polynomials, and know and apply the remainder theorem. |
| Represent (graph) constraints by [equations] or inequalities, and by [systems of equations] and/or inequalities |  | Statistics \& Probability |
| Interpret solution sets as viable or non- viable options in a modeling context. |  | Interpret the sloe and the intercept of a linear model in the context of the data. Compute and interpret the correlation coefficient of a linear fit. Distinguish between correlation and causation. Combined to: Distinguished between correlation and causation and recognize possible associations and trends in the data. |
| Create equations and inequalities in one variable and use them to solve problems. |  |  |
| Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. |  |  |
| Transform linear equations/formulas to solve for specific variables. |  |  |
| Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non- viable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods. |  |  |
| Interpreting Functions |  |  |
| Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. |  |  |

