Delaware
Comprehensive Assessment System

Performance Level Descriptors

Algebra II

End-Of-Course - Algebra II

Performance Level 4 – Advanced	Performance Level 3 – Meets the Standard	Performance Level 2 – Below Standard	Performance Level 1 – Well Below Standard
Students at this level consistently and effectively demonstrate knowledge of Algebra II content. They apply their knowledge to analyze and solve a variety of problems, including those that require multiple decisions and planning or those that are set in unfamiliar contexts. Students develop new approaches or use sophisticated algebraic reasoning strategies to successfully solve novel and complex problems.	Students at this level frequently, accurately, and satisfactorily demonstrate knowledge of Algebra II content. Students can apply familiar math knowledge to solve problems that may require more than one step. They use effective, sometimes informal, algebraic reasoning strategies to solve problems.	Students at this level inconsistently, inadequately, and partially demonstrate knowledge of Algebra II content. Students at this level demonstrate gaps and misconceptions in content knowledge. They can solve problems that rely on previously learned routines that have been practiced extensively. Students at this level show evidence of solving algebraic reasoning problems that are based on recall or that have a specific mathematical strategy indicated.	Students at this level do not demonstrate knowledge of Algebra II content. They use inappropriate strategies to solve problems. Students rarely, incorrectly, and minimally understand the required algebraic reasoning to advance to the next mathematics course.

Content Summary Expectations

- The Real Number System **(N-RN)** – Extend the properties of exponents to rational exponents
- Seeing Structure in Expressions **(A-SSE)** – Interpret the structure of expressions
    – Write expressions in equivalent forms to solve problems
- Arithmetic with Polynomials and Rational Expressions **(A-APR)** – Perform arithmetic operations on polynomials
- Creating Equations **(A-CED)** – Create equations that describe numbers or relationships
- Reasoning with Equations and Inequalities **(A-REI)** – Understand solving equations as a process of reasoning and explain the reasoning
    – Solve equations and inequalities in one variable
    – Solve systems of equations
    – Represent and solve equations and inequalities graphically
- Interpreting Functions **(F-IF)** – Understand the concept of a function and use function notation
    – Interpret functions that arise in applications in terms of the context
    – Analyze functions using different representations
- Building Functions **(F-BF)** – Build a function that models a relationship between two quantities
    – Build new functions from existing functions
- Expressing Geometric Properties with Equations **(G-GPE)** – Translate between the geometric description and the equation for a conic section
- Interpreting Categorical and Quantitative Data **(S-ID)** – Summarize, represent, and interpret data on a single count or measurement variable
- Conditional Probability and the Rules of Probability **(S-CP)** – Understand independence and conditional probability and use them to interpret data
    – Use the rules of probability to compute probabilities of compound events in a uniform probability model
- Using Probability to Make Decisions **(S-MD)** – Use probability to evaluate outcomes of decisions