

## Math Grade 9 Final

(Student name) scored at the *Advanced* level in Math. Students scoring at this level generally exhibit the ability to

- evaluate, simplify, and solve problems involving scientific notation;
- apply proportional reasoning to model and solve real-life problems involving direct and inverse variation;
- use a variety of methods to solve problems involving 2 X 2 systems of linear equations;
- graphically represent the solution of a 2 X 2 system of linear inequalities;
- determine appropriate units and scales to use when solving measurement problems;
- perform translations and line reflections in the coordinate plane;
- translate fluently between tabular, graphical, and algebraic representations of functions;
- compare, contrast, and describe characteristics of linear functions and basic families of functions; and
- solve problems involving indirect measurement and express results in terms of the degrees of accuracy and precision.

(Student name) scored at the *Mastery* level in Math. Students scoring at this level generally exhibit the ability to

- evaluate and simplify algebraic expressions involving order of operations with rational numbers;
- apply proportional reasoning to model and solve real-life problems involving direct variation;
- represent real-life situations as linear equations or inequalities and find solutions;
- graphically represent 2 X 2 systems of equations and identify the solution;
- make measurements based on the degree of precision or accuracy needed;
- use points to describe translations and line reflections;
- understand the relationship of the constants and coefficients in a linear function to the graph of the function; and
- identify and describe the characteristics of families of linear functions.

(Student name) scored at the *Basic* level in Math. Students scoring at this level generally exhibit the ability to

- represent numbers as exponential expressions with positive, integral exponents;
- recognize and graph linear equations and use appropriate terminology to describe and interpret slope, intercept, point, intersection, etc.;
- understand the language of algebra and make appropriate translations between verbal and symbolic representations;
- choose appropriate common units (U.S. and metric) to make measurements;
- draw translations and line reflections in a coordinate system;
- solve multi-step equations and inequalities in one variable; and
- read, organize, construct, and interpret data presented in a variety of formats and make generalizations using these representations.

(Student name) scored at the *Approaching Basic* level in Math. Students scoring at this level generally exhibit the ability to

- perform basic operations with positive rational numbers;
- locate points on a coordinate grid;
- use calculators to evaluate polynomials for given values of the variables;
- make measurements using common (U.S. and metric) measurement units; and
- follow and interpret processes expressed in flow charts.

(Student name) scored at the *Unsatisfactory* level in Math. Students scoring at this level have not demonstrated the fundamental knowledge and skills needed for the next level of schooling. Students scoring at this level need to develop the ability to

- perform basic operations with positive rational numbers;
- locate points on a coordinate grid;
- use calculators to evaluate polynomials for given values of the variables;
- make measurements using common (U.S. and metric) measurement units; and
- follow and interpret processes expressed in flow charts.