Analytic Geometry – Understanding Your Child's Performance: Below is a summary of skills and knowledge students must demonstrate to achieve each performance level. A student should demonstrate mastery of knowledge and skills within his/her achievement level *as well as* all content and skills that precede it. For example, a Proficient Learner should also possess the knowledge and skills of a Developing Learner *and* a Beginning Learner.

	Beginning Learner	Developing Learner	Proficient Learner	Distinguished Learner
End-of-Course Analytic Geometry	In general, your child can: • identify rational and irrational numbers • add, subtract, multiply, and divide expressions • identify and classify functions • identify similar figures • use the Pythagorean Theorem • calculate the circumference and area of a circle • identify the center and radius of a circle from graph • calculate volume • represent quantitative data using a scatter plot • calculate the probability of independent events	In general, your child can: • rewrite expressions with square roots • create equations to describe relationships • identify solutions to systems of equations graphically • build functions that model simple relationships • compare linear, quadratic, and exponential models • use transformations to understand congruence • apply geometric theorems • use trigonometric ratios to solve simple problems with right triangles • find simple arc lengths and areas of sectors of a circle • identify the center and radius of a circle from an equation • use volume formulas to solve problems • visualize 2-D and 3-D objects • calculate the probabilities of independent and dependent events	In general, your child can: • interpret and use properties of rational and irrational numbers • write expressions to solve problems • solve equations and inequalities with one variable • solve systems of equations • interpret and analyze functions • construct and compare linear, quadratic, and exponential models • prove geometric theorems • define trigonometric ratios • understand and apply circle theorems • use coordinates to prove simple geometric theorems algebraically • explain the use of volume formulas • apply geometric concepts to model a situation • represent and interpret data on two categorical and quantitative variables • compute probabilities of compound events	In general, your child can: • explain properties of rational and irrational numbers • use arithmetic operations on polynomials • analyze and create equations that describe relationships • solve multistep equations and inequalities • analyze and represent functions using different representations • build a function that models a complex relationship • analyze linear, quadratic, and exponential models and solve problems in context • use geometric constructions to solve problems • solve multistep problems involving right triangles • use circle theorems in context • use volume formulas to solve complex problems • interpret independence and conditional probability