HORNET TARGETS TRACKER

HIGH SCHOOL MATH 3

Discover · Explore · Practice · Create

Target #	Target	Can I?'s
M3.T1	I CAN simplify polynomial expressions.	• Add and subtract polynomial expressions? • Multiply polynomial expressions?
M3.T2	I CAN simplify complex numbers.	• Rewrite and simplify imaginary numbers? • Add and subtract complex numbers? • Multiply complex numbers? • Divide complex numbers?
M3.T3	I CAN interpret quadratic expressions and factor.	• Determine if an expression is quadratic and interpret its parts? • Understand and describe how changing parts of a quadratic expression can affect that expression? • Extract the GCF from a polynomial expression? • Factor a trinomial in which the coefficient on the quadratic term is one? • Factor a trinomial in which the quadratic term has a coefficient other than one? • Use special factoring patterns to factor an expression?
M3.T4	I CAN solve quadratic equations and inequalities.	• Solve a quadratic equation by taking the square root? • Solve a quadratic equation by factoring? • Solve quadratic inequalities and graph the solution on a number line? • Rearrange a formula to isolate a quantity of interest?
M3.T5	I CAN solve quadratic equations using various methods.	• Solve quadratic equations by completing the square? • Use the discriminant of a quadratic equation to determine the nature of the roots, such as number of solutions, real or imaginary, and rational or irrational? • Solve a quadratic equation by using the quadratic formula? • Apply a quadratic equation to solve an application problem?
M3.T6	I CAN graph quadratic functions.	• Graph a quadratic function using a table of values? • Graph a quadratic function using technology, and identify key features of the parabola, such as vertex, maximum, minimum, axis of symmetry, direction of opening, and intercepts? • Graph a quadratic equation from standard form, and show its key features? • Graph a quadratic equation from vertex form, and show its key features? • Graph a quadratic equation from intercept form, and show its key features?
M3.T7	I CAN interpret quadratic functions.	• Give the intervals where a quadratic function is increasing, decreasing, positive, and negative, and describe the end behavior? • Describe the domain and range of a quadratic function? • Calculate and interpret the average rate of change of a function? • Relate key features of a quadratic function to their quantities within an application?

M3.T8	I CAN create and use quadratic equations.	• Rewrite a quadratic equation in a different form, such as standard form to vertex form? • Create a quadratic equation given key features of the function? • Create a quadratic equation given the graph of the parabola? • Create a quadratic equation from a real-life application and use it to solve the problem?
M3.T9	I CAN rewrite rational expressions.	• Simplify rational expressions and identify any restrictions on the domain? • Multiply and divide rational expressions? • Find the LCD of monomials in rational expressions? • Find the LCD of polynomials in rational expressions? • Add and subtract rational expressions? • Divide polynomials using long division. • Simplify complex fractions?
M3.T10	I CAN solve rational and radical equations.	• Solve rational equations with monomials in the denominator? • Solve rational equations with polynomials in the denominator? • Clear radicals in an equation by using appropriate powers? • Solve equations containing radicals such as square roots and cubed roots? • Determine if solutions of rational and radical equations are extraneous?
M3.T11	I CAN solve a system of equations.	• Use technology to approximate the solutions to a system of equations? • Determine if a solution to a system of equations is extraneous? • Solve a system of equations algebraically using the method of substitution? • Solve systems that can include linear, quadratic, polynomial, rational, and radical functions?
M3.T12	I CAN find the area of two-dimensional figures.	• Find the circumference and area of circles? • Use the Pythagorean Theorem to find sides of right triangles? • Apply the special right triangle rules to find sides of right triangles? • Find the area of polygons, such as triangles, rectangles, and trapezoids? • Find the area of regular polygons such as hexagons and octagons? • Apply area within an application or modeling situation?
M3.T13	I CAN find the surface area and volume of three-dimensional figures.	• Find the surface area of spheres, cylinders, and cones? • Find the volume of spheres, cylinders, and cones? • Find the surface area of prisms and pyramids? • Find the volume of prisms and pyramids? • Find the surface area of composite solids? • Find the volume of composite solids? • Apply surface area and volume within an application or modeling situation?
M3.T14	I CAN understand and apply theorems about circles.	• Identify lines and angles related to circles? • Identify and find the measure of arcs on a circle? • Determine if a line is tangent to a circle using the Pythagorean Theorem? • Apply tangent properties on a circle to find segment lengths? • Find the length of an arc on a circle? • Find the area of a sector and segment on a circle? • Find the measure of central and inscribed angles in a circle? • Find the measure of angles related to circles, such as angles created by chords, secants, and tangents?
M3.T15	I CAN create and use the equation of a circle in the coordinate plane.	• Graph a circle in the coordinate plane from the standard form equation, and find the center and radius? • Create the equation of a circle given the center and radius? • Rewrite a circle equation in different forms, such as general form to standard form?