Danville Area School District
Course Overview and Scope and Sequence

Course Title: Trigonometry and PreCalculus
Content Area: Math
Grade Level:
Date Developed: June 2023

COURSE OVERVIEW:
ANCHOR STANDARDS: A2.1.2.1.1 Simplify or evaluate expressions involving logarithms and exponents. A2.1.3.1.3 Write and/or solve exponential or logarithmic equations. A2.1.3.1.4 Write, solve, and/or apply linear or exponential growth or decay equations. A2.2.1.1.3 Determine the domain, range, and inverse of a relation. A2.2.1.1.4 Identify and/or determine the characteristics of an exponential, quadratic, or polynomial function. A2.2.2.1.1 Create, interpret, and/or use the equation, graph, or table of an exponential or logarithmic function. A2.2.2.1.3 Determine, use, and/or interpret minimum and maximum values over a specified interval of a graph of a polynomial, exponential, or logarithmic function. A2.2.2.1.4 Translate a polynomial, exponential, or logarithmic function from one representation of a function to another. A2.2.2.2.1 Identify or describe the effect of changing parameters within a family of functions.
KEY COURSE TEXT AND MATERIALS:
KEY ASSESSMENTS: Diagnostic: Formative: Summative:

SCOPE AND SEQUENCE					
Unit	PRIORITY STANDARDS	SUPPORTING STANDARDS	ASSESSMENT	MATERIALS	TIMEFRAME
Preparing for Precalculus			Quiz on order of operations and complex numbers Quiz on equations and inequalities of lines	Textbook Order of operations worksheet Inequality notation and interval worksheet Equations and inequalities worksheet Linear equations worksheet 1 Linear equations worksheet 2	16 Days
Solving and Graphing Absolute Values, Quadratics, Cubics, Radical and Rational Functions			Quadratics quiz Absolute value quiz Quiz of quadratics, absolute value and cubics Radical function and equation quiz Rational function and equation quiz	Textbook Solving quadratics worksheet Quadratics notes Absolute value notes/packet Absolute value worksheet Cubic equations notes/packet Review of quadratics, absolute value and cubics worksheet	47 Days

				Radicals equation notes/packet Radicals review worksheet Rational equations notes/packet Simplifying rational expression worksheet Review of rational expressions and equations worksheet	
Exponential and Logarithmic Functions			Applications of exponential functions take home quiz	Textbook Exponential packet Compound interest examples worksheet Compound interest worksheet Worksheet 8-3 (Logarithm worksheet) Logarithmic functions worksheet Worksheet 8-4 (Rules of logarithms worksheet)	21 Days

				Review worksheet for logarithms	
Inverse and Composite Functions			Combination, composite and inverse quiz	Textbook Parent function worksheet Review worksheet of combination, composite and inverse functions	7 Days
Trigonomic Functions			Trig function quiz 1	Textbook Trig function worksheet 1 Worksheet of converting DD to DMS and radians Degree, radian and arc length review worksheet Speed quizzes Finding reference angles worksheet Special right triangle worksheet 30-45-60 degree and quadrantal worksheet Kuta worksheet for special angles	52 Days

				Amplitude worksheet Period worksheet Phase shift worksheet Vertical shift worksheet Graphing sine and cosine packet Graphing tangent worksheet Graphing tangent, secant, cosecant, and cotangent worksheet 1 Graphing tangent, secant, cosecant, and cotangent worksheet 2 Law of sines worksheet 1 Law of sines ambiguous case worksheet 1 Law of sine - mixed- worksheet Law of cosine worksheet	

				Law of cosine notes Law of sine and cosine and area of triangles worksheet Chapter 4 review packet Chapter 4 test	
Trigonometric Identities and Equations			Identities quiz 1 Identities quiz 2 Solving trig equations		20 Days