

**MATATAG → Math → Grade 9**

Topic	New File Name	File Type	Level of Skill Progression
<b>Q1</b>			
simple geometric concepts and notations	DEV_Video - Label and Name Points, Lines, Rays and Angles Using Math Notation	video	Developing
perpendicular and parallel lines, and angles formed by parallel lines cut by a transversal	DEV_Video - Congruent Angles Formed by Parallel Lines and a Transversal	video	Developing
	DEV_Video - Find Angles Formed by Parallel Lines and a Transversal	video	Developing
	DEV_Video - Relations and Functions	video	Developing
	DEV_Discussion Presentation - Construction: Creating a Line Parallel to Another Line	ppt	Developing
	DEV_Discussion Presentation - Construction: Creating a Line Perpendicular to Another Line	ppt	Developing
	DEV_Discussion Presentation - Pairs of Angles	ppt	Developing
	DEV_Discussion Presentation - Parallel and Perpendicular Lines	ppt	Developing
	DEV_Discussion Presentation - Angles Formed by Parallel Lines Cut by a Transversal Line	ppt	Developing
	DEV_Discussion Presentation - Solving Problems Involving Parallel Lines Cut by a Transversal Line	ppt	Developing
	DEV_Discussion Presentation - Properties of Parallel Lines	ppt	Developing
	DEV_Discussion Presentation - Proving Parallel Lines	ppt	Developing
	DEV_Discussion Presentation - Proving Perpendicular Lines	ppt	Developing
	DEV_Printable Worksheet - Construction: Creating a Line Parallel to Another Line	pdf	Developing
	DEV_Printable Worksheet - Construction: Creating a Line Perpendicular to Another Line	pdf	Developing
	DEV_Printable Worksheet - Pairs of Angles	pdf	Developing
	DEV_Printable Worksheet - Parallel and Perpendicular Lines	pdf	Developing
	DEV_Printable Worksheet - Angles Formed by Parallel Lines Cut by a Transversal Line	pdf	Developing
	DEV_Printable Worksheet - Solving Problems Involving Parallel Lines Cut by a Transversal Line	pdf	Developing
	DEV_Printable Worksheet - Properties of Parallel Lines	pdf	Developing
	DEV_Printable Worksheet - Proving Parallel Lines	pdf	Developing
	DEV_Printable Worksheet - Proving Perpendicular Lines	pdf	Developing

perpendicular and parallel lines, and angles formed by parallel lines cut by a transversal	DEV_eContent - Inductive Reasoning: Angles and Parallel Lines_BU	html	Developing
	DEV_eContent - Inductive Reasoning: Angles and Parallel Lines_STR	html	Developing
	DEV_eContent - Inductive Reasoning: Angles and Parallel Lines_MAS	html	Developing
	DEV_eContent - Inductive Reasoning: Transversal Line_BU	html	Developing
	DEV_eContent - Inductive Reasoning: Transversal Line_STR	html	Developing
	DEV_eContent - Inductive Reasoning: Transversal Line_MAS	html	Developing
	DEV_eContent - Linear Functions_BU	html	Developing
	DEV_eContent - Linear Functions_STR	html	Developing
	DEV_eContent - Linear Functions_MAS	html	Developing
	PRO_Video - Parallel and Perpendicular Lines	video	Proficient
	PRO_Video - Graphing Parallel and Perpendicular Lines	video	Proficient
relations and functions	DEV_Discussion Presentation - Relations and Functions	ppt	Developing
	DEV_Printable Worksheet - Relations and Functions	pdf	Developing

graphs of linear functions, and the identification of domain and range, slope, intercepts, and zeros	DEV_Video - Show the Relationship Between Variables Using a Graph	video	Developing
	DEV_Video - Change a Linear Equation to Slope-Intercept Form	video	Developing
	DEV_Video - Write the Equation of a Line from Given Graph	video	Developing
	DEV_Video - Describe Relations and Functions	video	Developing
	DEV_Video - Functions Slope, Y Intercept Equation from a Table	video	Developing
	DEV_Video - Learn the Basics of How to Determine the Domain and Range of a Function	video	Developing
	DEV_Video - Relationship Between Variables	video	Developing
	DEV_Video - Create Appropriate Linear Relationships by Graphing	video	Developing
	DEV_Video - Determine the Domain and Range from a Graph	video	Developing
	DEV_Video - Determine the Rate of Change and Initial Value of Linear Relationships from Tables	video	Developing
	DEV_Video - Determining the Constant Rate of Change	video	Developing
	DEV_Video - Facts About Linear Functions	video	Developing
	DEV_Video - Identify Linear Functions Linking Equal Differences to Equal Intervals	video	Developing
	DEV_Video - Identifying Slope Y-Intercept of a Linear Function from a Table	video	Developing
	DEV_Video - Learn How to Determine the Domain and Range from a Function	video	Developing
	DEV_Video - Understand Domain Restriction in Linear Functions in Terms of Real-World Context	video	Developing
	DEV_Video - What Is a Linear Function and Is It Concrete or Discrete	video	Developing
	DEV_Discussion Presentation - Linear Functions	ppt	Developing
	DEV_Discussion Presentation - Problems Involving Linear Functions	ppt	Developing
	DEV_Printable Worksheet - Linear Functions	pdf	Developing
	DEV_Printable Worksheet - Problems Involving Linear Functions	pdf	Developing

Q2			
parallelism and perpendicularity of lines	DEV_Video - Applications of Parallelograms	video	Developing
	DEV_Discussion Presentation - Theorems on Parallelograms	ppt	Developing
	DEV_Printable Worksheet - Theorems on Parallelograms	pdf	Developing
different quadrilaterals and their properties	DEV_Video - How to Find the Missing Length of a Trapezoid Using the Midsegment Formula	video	Developing
	DEV_Video - How to Use the Midsegment Theorem to Find the Length of a Base of a Trapezoid	video	Developing
	DEV_Video - Determining the Length of a Kite Using the Pythagorean Theorem	video	Developing
	DEV_Video - Application of the Properties of Parallelograms	video	Developing
	DEV_Video - How to Find the Missing Angle of a Kite	video	Developing
	DEV_Video - Use Parallel Lines and Triangle Congruence Theorems to Prove Properties of Diagonals Within Parallelograms	video	Developing
	DEV_Video - Use Parallel Lines and Triangle Congruence Theorems to Prove Properties of Parallelograms	video	Developing
	DEV_Discussion Presentation - Undefined Terms in Geometry	ppt	Developing
	DEV_Discussion Presentation - Quadrilaterals and Parallelograms	ppt	Developing
	DEV_Printable Worksheet - Undefined Terms in Geometry	pdf	Developing
	DEV_Printable Worksheet - Quadrilaterals and Parallelograms	pdf	Developing
	DEV_eContent - Quadrilaterals_BU	html	Developing
	DEV_eContent - Quadrilaterals_STR	html	Developing
	DEV_eContent - Quadrilaterals_MAS	html	Developing

congruence of triangles	DEV_Video - Geometry - Triangle Proofs	video	Developing
	DEV_Video - Proofs Using CPCTC	video	Developing
	DEV_Video - Use Triangle Congruence to Prove Triangle Relationships	video	Developing
	DEV_Video - Use Congruence Criteria by Writing Proofs	video	Developing
	DEV_Discussion Presentation - Construction - Bisecting a Line Segment	ppt	Developing
	DEV_Discussion Presentation - Construction - Angle Bisector	ppt	Developing
	DEV_Discussion Presentation - Congruent Triangles	ppt	Developing
	DEV_Discussion Presentation - Proving Triangle Congruence	ppt	Developing
	DEV_Discussion Presentation - Solving Corresponding Parts Congruent Triangles	ppt	Developing
	DEV_Discussion Presentation - Proving Isosceles Triangle Congruence	ppt	Developing
	DEV_Discussion Presentation - Midline Theorem and Theorems on Trapezoids and Kites	ppt	Developing
	DEV_Printable Worksheet - Construction - Bisecting a Line Segment	pdf	Developing
	DEV_Printable Worksheet - Construction - Angle Bisector	pdf	Developing
	DEV_Printable Worksheet - Congruent Triangles	pdf	Developing
	DEV_Printable Worksheet - Proving Triangle Congruence	pdf	Developing
	DEV_Printable Worksheet - Solving Corresponding Parts Congruent Triangles	pdf	Developing
	DEV_Printable Worksheet - Proving Isosceles Triangle Congruence	pdf	Developing
	DEV_Printable Worksheet - Midline Theorem and Theorems on Trapezoids and Kites	pdf	Developing
	DEV_eContent - Triangle Congruence_BU	html	Developing
	DEV_eContent - Triangle Congruence_STR	html	Developing
	DEV_eContent - Triangle Congruence_MAS	html	Developing
	PRO_Video - Proving Triangle Congruence and Similarity	video	Proficient
congruence proofs	DEV_Video - Deductive Reasoning with Proofs	video	Developing
	DEV_Video - Geometry Beginning Proofs (Level 2 of 3)	video	Developing
	DEV_Discussion Presentation - Deductive and Inductive Reasoning	ppt	Developing
	DEV_Discussion Presentation - Writing Proofs	ppt	Developing
	DEV_Discussion Presentation - SSS Postulate	ppt	Developing
	DEV_Printable Worksheet - Deductive and Inductive Reasoning	pdf	Developing
	DEV_Printable Worksheet - Writing Proofs	pdf	Developing
	DEV_Printable Worksheet - SSS Postulate	pdf	Developing
	DEV_eContent - If-Then Statements_BU	html	Developing
	DEV_eContent - If-Then Statements_STR	html	Developing
	DEV_eContent - If-Then Statements_MAS	html	Developing

Q3			
quadratic equations and graphs of quadratic functions	DEV_Discussion Presentation - Discriminant of Quadratic Equations	ppt	Developing
	DEV_Discussion Presentation - Quadratic Equations	ppt	Developing
	DEV_Printable Worksheet - Discriminant of Quadratic Equations	pdf	Developing
	DEV_Printable Worksheet - Quadratic Equations	pdf	Developing
	PRO_Video - Introduction to Quadratic Equations	video	Proficient
the solution of quadratic equations	DEV_Video - Find Zeros, Extreme Values and Lines of Symmetry Using Different Forms	video	Developing
	DEV_Video - Find the Maximum or Minimum Value of a Quadratic Equation Using Vertex Form Real-World Application	video	Developing
	DEV_Video - Graph Quadratic Equations Using Vertex Form and the Leading Coefficient	video	Developing
	DEV_Video - Graph Quadratic Functions	video	Developing
	DEV_Video - Introduction to Quad Functions and Graphs	video	Developing
	DEV_Video - Solve Real-World Problems Using Quadratic Graphs	video	Developing
	DEV_Video - Understand Parabola Features and Examine Effects of Coefficients on a Graph	video	Developing
	DEV_Video - Write a Quadratic Equation in Vertex Form by Completing the Square	video	Developing
	DEV_Video - Write and Graph a Quadratic Function by Examining a Table	video	Developing
	DEV_Video - Solve a Quadratic Equation Using Inspection	video	Developing
	DEV_Video - Solve a Quadratic Equation by Factoring	video	Developing
	DEV_Video - Solve a Quadratic Equation by Inspection	video	Developing
	DEV_Discussion Presentation - Solving Quadratic Equations by Extracting the Square Roots	ppt	Developing
	DEV_Discussion Presentation - Solving Quadratic Equations by Factoring	ppt	Developing
	DEV_Discussion Presentation - Solving Quadratic Equations Completing the Squares	ppt	Developing
	DEV_Discussion Presentation - Solving Quadratic Equations Using the Quadratic Formula	ppt	Developing
	DEV_Printable Worksheet - Solving Quadratic Equations by Extracting the Square Roots	pdf	Developing
	DEV_Printable Worksheet - Solving Quadratic Equations by Factoring	pdf	Developing
	DEV_Printable Worksheet - Solving Quadratic Equations Completing the Squares	pdf	Developing
	DEV_Printable Worksheet - Solving Quadratic Equations Using the Quadratic Formula	pdf	Developing
	DEV_eContent - Quadratic Formula_BU	html	Developing
	DEV_eContent - Quadratic Formula_STR	html	Developing
	DEV_eContent - Quadratic Formula_MAS	html	Developing
	PRO_Video - Completing The Square - Quadratics	video	Proficient
	PRO_Video - Solving Quadratics by Using the Quadratic Formula	video	Proficient
	PRO_Video - Algebra - Quadratic Formula - Solving Quadratics	video	Proficient
	PRO_Video - Solving Quadratics by Factoring	video	Proficient

similarity of polygons	DEV_Video - Determine Similarity by Comparing Angles	video	Developing
special triangles	DEV_Video - Angles of Triangles and Similarity	video	Developing
	DEV_Video - Find Corresponding Angles of Similar Triangles	video	Developing
	DEV_Video - Determine If Two Right Triangles Are Similar	video	Developing
	DEV_Discussion Presentation - Similarity of Triangles and Other Polygons	ppt	Developing
	DEV_Discussion Presentation - Proving Similarity of Triangles and Pythagorean Theorem	ppt	Developing
	DEV_Discussion Presentation - Solving Problems Involving Triangles	ppt	Developing
	DEV_Printable Worksheet - Similarity of Triangles and Other Polygons	pdf	Developing
	DEV_Printable Worksheet - Proving Similarity of Triangles and Pythagorean Theorem	pdf	Developing
	DEV_Printable Worksheet - Solving Problems Involving Triangles	pdf	Developing
direct and inverse variation	DEV_Video - How to Write Graph Direct Variation Equations	video	Developing
	DEV_Video - Identify Direct and Inverse Variation by Looking at the Shape of Graphs	video	Developing
	DEV_Discussion Presentation - Direct Variation	ppt	Developing
	DEV_Discussion Presentation - Inverse Variation	ppt	Developing
	DEV_Printable Worksheet - Direct Variation	pdf	Developing
	DEV_Printable Worksheet - Inverse Variation	pdf	Developing
	DEV_eContent - Direct Variation_BU	html	Developing
	DEV_eContent - Direct Variation_STR	html	Developing
	DEV_eContent - Direct Variation_MAS	html	Developing
	DEV_eContent - Indirect Variation_BU	html	Developing
	DEV_eContent - Indirect Variation_STR	html	Developing
	DEV_eContent - Indirect Variation_MAS	html	Developing

Q4			
triangle theorems and triangle inequality theorems	DEV_Video - Triangle Sum Theorem and Exterior Angle Theorem	video	Developing
	DEV_Discussion Presentation - Inequalities in One Triangle	ppt	Developing
	DEV_Discussion Presentation - Triangle Inequality Theorem and Hinge Theorem	ppt	Developing
	DEV_Discussion Presentation - Midline Theorem and Theorems on Trapezoids and Kites	ppt	Developing
	DEV_Printable Worksheet - Inequalities in One Triangle	pdf	Developing
	DEV_Printable Worksheet - Triangle Inequality Theorem and Hinge Theorem	pdf	Developing
	DEV_Printable Worksheet - Midline Theorem and Theorems on Trapezoids and Kites	pdf	Developing
	PRO_Video - The Triangle Midsegment Theorem	video	Proficient
the trigonometric ratios and their application	DEV_Video - Apply Trigonometry and the Pythagorean Theorem in Context	video	Developing
	DEV_Video - Determine the Domain of the Six Trigonometric Functions Using Ratio Denominators	video	Developing
	DEV_Video - Evaluate Your Six Trigonometric Functions When Given a Point Not on the Unit Circle	video	Developing
	DEV_Video - Evaluating the Six Trigonometric Functions Given a Right Triangle	video	Developing
	DEV_Video - Find Values of Trigonometric Functions Using a Unit Circle	video	Developing
	DEV_Video - Model with Angles of Elevation and Depression	video	Developing
	DEV_Discussion Presentation - Trigonometric Ratios	ppt	Developing
	DEV_Discussion Presentation - Trigonometric Ratios of Special Angles	ppt	Developing
	DEV_Discussion Presentation - Angles of Elevation and Depression	ppt	Developing
	DEV_Discussion Presentation - Solving Word Problems Involving Right Triangles	ppt	Developing
	DEV_Printable Worksheet - Trigonometric Ratios	pdf	Developing
	DEV_Printable Worksheet - Trigonometric Ratios of Special Angles	pdf	Developing
	DEV_Printable Worksheet - Angles of Elevation and Depression	pdf	Developing
	DEV_Printable Worksheet - Solving Word Problems Involving Right Triangles	pdf	Developing
	DEV_eContent - Pythagorean Theorem_BU	html	Developing
	DEV_eContent - Pythagorean Theorem_STR	html	Developing
	DEV_eContent - Pythagorean Theorem_MAS	html	Developing
	DEV_eContent - Trigonometric Ratios: Special Angles_BU	html	Developing
	DEV_eContent - Trigonometric Ratios: Special Angles_STR	html	Developing
	DEV_eContent - Trigonometric Ratios: Special Angles_MAS	html	Developing
	PRO_Video - Angles of Elevation and Depression	video	Proficient
	PRO_Video - Solving Trigonometric Equations	video	Proficient
	PRO_Video - Trigonometric Functions Sine, Cosine, Tangent, Cosecant, Secant, and Cotangent	video	Proficient



interpretation and analysis of data to assess whether the data may be misleading	DEV_Discussion Presentation - Organization and Presentation of Data	ppt	Developing
	DEV_Printable Worksheet - Organization and Presentation of Data	pdf	Developing
probabilities of simple and compound events	DEV_Discussion Presentation - Experiment, Outcomes, Sample Space, and Events	ppt	Developing
	DEV_Discussion Presentation - Probability of Compound Events, Conditional Probability, and Independence	ppt	Developing
	DEV_Printable Worksheet - Experiment, Outcomes, Sample Space, and Events	pdf	Developing
	DEV_Printable Worksheet - Probability of Compound Events, Conditional Probability, and Independence	pdf	Developing