



## Most Essential Learning Competencies (MELCs)



Quarter	Content Standards	Performance	Most Essential Learning competencies	Duration	K to 12 CG Code
		Standards			
	The learner	The learner	The learner		
		of lines using			
		appropriate and			
		accurate			
		representations.			
	demonstrates	is able to	illustrates an experiment, outcome, sample space and	Week 6	M8GE-IVf-1
	understanding of key	formulate and	event.		
	concepts of	solve practical	counts the number of occurrences of an outcome in an	Week 7	M8GE-IVf-g-1
	probability.	problems	experiment: (a) table; (b) tree diagram; (c) systematic		
		involving	listing; and (d) fundamental counting principle.		
		probability of	finds the probability of a simple event.	Week 8	M8GE-IVh-1
		simple events.	illustrates an experimental probability and a theoretical	Week 9	M8GE-IVi-1
		Simple events.	probability.		
			solves problems involving probabilities of simple events.		M8GE-IVi-j-1

## Grade Level: Grade 9 Subject: Mathematics

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	The learner	The learner	The learner		
Q1	demonstrates	is able to	illustrates quadratic equations.	Week 1	M9AL-Ia-1
	understanding of key concepts of quadratic	investigate thoroughly mathematical	solves quadratic equations by: (a) extracting square roots; (b) factoring; (c) completing the square; and (d) using the quadratic formula.		M9AL-Ia-b-1
	equations, inequalities	relationships in various situations,	characterizes the roots of a quadratic equation using the discriminant.	Week 2 to 3	M9AL-Ic-1
	and functions,	formulate real-life problems involving	describes the relationship between the coefficients and the roots of a quadratic equation.		M9AL-Ic-2
	quadratic	solves equations transformable to quadratic equations (including rational algebraic equations).		M9AL-Ic-d-1	

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	algebraic equations.	-	solves problems involving quadratic equations and rational algebraic equations.	Week 4	M9AL-le-1
			illustrates quadratic inequalities	Week 5	M9AL-If-1
		them using a	solves quadratic inequalities.		M9AL-If-2
		variety of	solves problems involving quadratic inequalities.		M9AL-If-g-1
		strategies.	models real-life situations using quadratic functions.	Week 6	M9AL-Ig-2
		StruteBrest	represents a quadratic function using: (a) table of values; (b) graph; and (c) equation.		M9AL-Ig-3
			transforms the quadratic function defined by $y = ax^2 + bx + c$ into the form $y = a(x - h)^2 + k$ .	Week 7 to 8	M9AL-Ih-1
			graphs a quadratic function: (a) domain; (b) range; (c) intercepts; (d) axis of symmetry; (e) vertex; (f) direction of the opening of the parabola.		M9AL-Ig-h-i-1
			analyzes the effects of changing the values of a, h and k in the equation $y = a(x - h)^2 + k$ of a quadratic function on its graph.		M9AL-Ii-2
			determines the equation of a quadratic function given: (a) a table of values; (b) graph; (c) zeros.	Week 9	M9AL-Ij-1
			solves problems involving quadratic functions.		M9AL-Ii-j-2
Q2	demonstrates understanding	is able to formulate and solve	illustrates situations that involve the following variations: (a) direct; (b) inverse; (c) joint; (d) combined.	Week 1 to 2	M9AL-IIa-1
	of key concepts accurately of variation problems involving	accurately	translates into variation statement a relationship between two quantities given by: (a) a table of values; (b) a mathematical equation; (c) a graph, and vice versa.		M9AL-IIa-b-1
			solves problems involving variation.		M9AL-IIb-c-1
			applies the laws involving positive integral exponents to zero and negative integral exponents.	Week 3	M9AL-IId-1
			simplifies expressions with rational exponents.	Week 4	M9AL-IIe-1

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	The learner	The learner	The learner		
			writes expressions with rational exponents as radicals and vice versa.		M9AL-IIf-1
			derives the laws of radicals.	Week 5	M9AL-IIf-2
			simplifies radical expressions using the laws of radicals.	Week 6	M9AL-IIg-1
			performs operations on radical expressions.	Week 7	M9AL-IIh-1
			solves equations involving radical expressions.	Week 8	M9AL-IIi-1
			solves problems involving radicals.	Week 9	M9AL-IIj-1
Q3	of key concepts and solve problem of involving parallelograms parallelograms and and triangle triangle similarity similarity. through appropriate and accurate		determines the conditions that make a quadrilateral a parallelogram.	Week 1	M9GE-IIIa-2
		and solve problems	uses properties to find measures of angles, sides and other quantities involving parallelograms.		M9GE-IIIb-1
		<ul> <li>parallelograms and triangle similarity through appropriate and accurate</li> </ul>	proves theorems on the different kinds of parallelogram (rectangle, rhombus, square).	Week 2	M9GE-IIIc-1
			proves the Midline Theorem.	Week 3	M9GE-IIId-1
			proves theorems on trapezoids and kites.		M9GE-IIId-2
			solves problems involving parallelograms, trapezoids and kites.	Week 4	M9GE-IIIe-1
		representation.	describes a proportion.	Week 5	M9GE-IIIf-1
		applies the fundamental theorems of proportionality to solve problems involving proportions.		M9GE-IIIf-2	
			illustrates similarity of figures.	Week 6 to 7	M9GE-IIIg-1
			proves the conditions for similarity of triangles.1.1SAS similarity theorem1.2SSS similarity theorem1.3AA similarity theorem1.4right triangle similarity theorem1.5special right triangle theorems		M9GE-IIIg-h-1
			applies the theorems to show that given triangles are similar.	Week 8	M9GE-IIIi-1
			proves the Pythagorean Theorem.		M9GE-IIIi-2

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			solves problems that involve triangle similarity and right triangles.	Week 9	
					M9GE-IIIj-1
Q4	demonstrates understanding of the basic concepts of trigonometry.	rstanding concepts of e basic trigonometric ratios epts of to formulate and	illustrates the six trigonometric ratios: sine, cosine, tangent, secant, cosecant, and cotangent.	Week 1 to 2	M9GE-IVa-1
			finds the trigonometric ratios of special angles.		M9GE -IVb-c-1
			blems with illustrates angles of elevation and angles of depression.	Week 3 to 5	M9GE-IVd-1
			uses trigonometric ratios to solve real-life problems involving right triangles.		M9GE-IVe-1
			illustrates laws of sines and cosines.	Week 6 to 9	M9GE-IVf-g-1
			solves problems involving oblique triangles.		M9GE-IVh-j-1