

TABLE OF SPECIFICATION  
Mathematics Department  
Grade 10, Fourth Diagnostic Test

LESSON	COMPETENCIES	Easy	Average	Difficult			No. of Items	Percentage of Items
		KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	EVALUATION		
1. Measures of Position for Ungrouped Data	1.) Illustrating the following measures of position: quartiles, deciles, and percentiles.	#2	#1, #3				3	15%
	2.) Calculating a specified measure of position (e.g., 90th percentile) of a set of data.			#4			1	5%
	3.) Interpreting measures of position.			#5, #6, #7			3	15%
2. Measures of Position for Grouped Data	1.) Calculating a specified measure of position (e.g., 90th percentile) of a set of data.	#8, #9, #14, #15	#10, #11, #17, #18	#12, #13		#16, #19, #20	13	65%

TABLE OF SPECIFICATION  
Mathematics Department  
Grade 10, Second Long Test

LESSON	COMPETENCIES	Easy	Average	Difficult			No. of Items	Percentage of Items
		KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	EVALUATION		
1. Zeros of Polynomial Functions	1.) Determining the zeros of polynomial functions.	#5					1	3%
2. Definition of Polynomial Functions	1. Finding the leading term or term in a polynomial function.		#1				1	3%
	2. Define polynomial functions.		#6				1	3%
3. Graph Of A Polynomial Function	1. Illustrating polynomial functions.			#18			1	3%
	2. Graphing polynomial functions.	#3, #7	#4	#13	#16, #17		6	20%
	3. Solving problems involving polynomial functions.		#14	#15			2	7%
4. Circles And Related Terms	1. Illustrating secants, tangents, segments, and sectors of a circle.	#2, #8	#19				3	10%
5. Inscribed Angles And Intercepted Arcs	1. Illustrating inscribed angles and intercepted arcs.	#10					1	3%
	2. Solving problems involving chords, arcs, central angles, and inscribed angles of circles.			#9, #11	#24		3	10%

6. Radii And Chords	1. Solving problems involving chords, arcs, central angles, and inscribed angles of circles.			#23			1	3%
7. Angles Formed By Secants And Tangents	1. Solving problems involving tangents and secants of circles.			#20			1	3%
8. Area Of Sectors And Segments Of A Circle	1. Illustrating segments and sectors of circles.							
	2. Solving problems involving angles formed by secants and tangents.			#12		#21	2	7%
9. Power Theorem	1. Solving problems involving secants and tangents.			#22			1	3%
10. Distance Formula	1. Applying the distance formula in proving some geometric properties	#25		#27			2	7%
	2. Graphing geometric figures on the coordinate plane.		#26				1	3%
11. Equation And Graph Of A Circle	1. Illustrating the center-radius form of the equation of a circle.		#28				1	3%
	2. Determining the center and radius of a circle given its equation and vice versa.			#29			1	3%
	3. Solving problems involving geometric figures on the coordinate plane.				#30		1	3%

TABLE OF SPECIFICATION  
Mathematics Department  
Grade 10, Third Diagnostic Test

LESSON	COMPETENCIES	Easy	Average	Difficult			No. of Items	Percentage of Items
		KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	EVALUATION		
1. Permutations	1. Illustrating permutation of objects.	#7, #9	#5, #19	#15, #41	#49, #45	#48	9	18%
	2. Solving problems involving permutations.	#42	#25, #36, #39, #45	#13, #17, #18, #40	#24, #29, #38	#27, #33, #43	15	29%
2. Equation And Graph Of A Circle	1. Determining the center and radius of a circle given its equation and vice versa.		#12	#4, #11, #16	#1	#14	6	12%
	2. Graphing a circle and other geometric figures on the coordinate plane.		#6, #10	#8	#3		4	8%
3. Combinations	1. Illustrating the combination of objects.		#2, #46	#47	#23	#50	5	10%
	2. Differentiating permutation from combination of n objects taken r at a time.			#22	#26		2	4%
	3. Solving problems involving permutations and combinations.		#30, #35	#20, #34, #44	#21, #37	#28	8	16%
4. Union and Intersection of Events	1. Illustrating events, and union and intersection of events.							
	2. Finding the probability of a union of two events.			#31			1	2%
5. Independent and Dependent Events	1. Illustrating dependent and independent events.							
	2. Finding the probabilities of dependent and independent events.				#32		1	2%

TABLE OF SPECIFICATION  
Mathematics Department  
Grade 10, First Diagnostic Test

LESSON	COMPETENCIES	Easy	Average	Difficult			No. of Items	Percentage of Items
		KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	EVALUATION		
1. Arithmetic Sequence	1.) Finding the common difference in an arithmetic sequence.			#10			1	3%
2. Arithmetic Series	1.) Finding the sum of the terms in an arithmetic sequence.			#25			1	3%
3. Geometric Sequence	1.) Finding the missing terms in a geometric sequence.			#9			1	3%
4. Geometric Series	1.) Finding the sum of the terms in a geometric sequence.			#29, #30			2	7%
5. Geometric Mean	1.) Finding the geometric mean in an geometric sequence.			#26			1	3%
6. Harmonic Sequence	1.) Finding the missing terms in a harmonic sequence.			#24		#27	2	7%
7. Fibonacci Sequence	1.) Finding the missing terms in a Fibonacci sequence.			#28			1	3%
8. Definition of Polynomial Functions	1.) Define polynomial functions.	#7	#6	#18			3	10%
	2.) Finding the leading term or term in a polynomial function.		#16	#5			2	7%
	3.) Finding the degree of a polynomial function.			#4			1	3%
9. Operations on Polynomial Functions	1.) Dividing polynomials.	#19	#15, #23	#3	#12	#14	6	20%
10. Zeros of Polynomial Functions	1.) Determining the zeros of polynomial functions.		#20, #21	#2, #11	#8	#1, #22	7	23%
	2.) Determining a polynomial function by means of its roots.			#13		#17	2	7%

Finding rational zeros	Finding Rational Zeros
graph of a polynomial function	Graph Of A Polynomial Function
circles and related terms	Circles And Related Terms
inscribed angles and intercepte	Inscribed Angles And Intercepted Arcs
radii and chords	Radii And Chords
tangent lines and tangent circle	Tangent Lines And Tangent Circles
angles formed by secants and t	Angles Formed By Secants And Tangents
power theorems	Power Theorems
area of sectors and segments o	Area Of Sectors And Segments Of A Circle
distance formula	Distance Formula
equation and graph of a circle	Equation And Graph Of A Circle

Permutations

Combinations

Probability of Compound Events

Union and Intersection of Events

Independent and Dependent Events

Conditional Probability

Measures of Position for Ungrouped Data

Measures of Position for Grouped Data