Can I …..? **Foundations 20 Concept Checklist (Carignan)** **Name:_____ #:_____**

Concept #	Concept **C= Calculator allowed NC = No Calculator**	Attempt #1	Attempt #2	
Topic 1 – Systems of Linear Inequalities in two variables (Ch. 6) Outcome FM 20.8				
1 **(NC)**	6. 1 Graph , determine and verify algebraically the solution to a single linear inequality			
2 **(NC)**	6.2/3b Graph a system of linear inequalities, find and verify solutions. Also be able to write a system of inequalities given a graph.			
3 **(NC)**	6.2/3 Write an inequality or a system of inequalities to match a given situation, find its domain, range and restrictions, graph the system, find a solution and be able to describe what the solution represents.			
4 **(C)**	6.4-6.6 Solve an optimization problem given just the situation. Justify and explain feasible regions, coordinates of vertices and other parts of optimization problems			
Topic 2 – Quadratic Functions (Ch. 7) Outcome FM20.9				
5 **(NC)**	7.2 Be able to graph a quadratic function using a table of values.			
6 **(NC)**	7.2 Given the graph of a quadratic function in standard form find the: vertex, equation of the axis of symmetry, domain and range and max or min. 7.2 Given the x- intercepts or two symmetrical points find the equation of the axis of symmetry.			
7 **(NC)**	7.5 Solve a quadratic equation by factoring(Determine the roots) and graph			
8 **(NC)**	7.4 Write a quadratic equation in standard form given the zeroes /x-intercepts or graph of a quadratic function.			
9 **(C)**	7.7 Solve a quadratic equation using the quadratic formula/determine the x intercepts of a parabola using the quadratic formula			
10 **(C)**	7.5/7.7/7.8 Solve a situational problem modelled by a quadratic function with or without a graphing calculator in standard form			
11 **(NC)**	7.6 Given Vertex form determine: vertex, x and y intercepts, domain and range, equation of the axis of symmetry, opens up or down, max or min and then be able to graph.			
12 **(NC)**	7.6 Determine the equation in vertex form of a parabola given its graph			
13 **(C)**	7.6 /7.8 Solve a situational problem modeled by a quadratic function using vertex form.(Including domain and range implications) (May use graphing Calculator)			
Topic 3 – Inductive & Deductive Reasoning (Ch. 1) Outcome FM20.2				
14 **(C)**	1.1 Make a conjecture by observing patterns and identifying properties.			
15 **(C)**	1.2/3 Analyze an argument for its validity and provide counterexamples to a conjecture with false conclusions.			
16 **(C)**	1.4/ 5 Prove algebraic number relationships and conjectures and identify errors in proof.			
COMPREHENSIVE TEST #1 Estimated date Week of Mar 27.				

Can I …..? **Foundations 20 Concept Checklist (Sundeen)** **Name:_____ #:_____**

Concept #	Concept **C= Calculator allowed NC = No Calculator**	Attempt #1	Attempt #2	Attempt #3
Topic 4– Properties of Angle and Triangles (Chapter 2) Outcome FM 20.4				
17 **(C)**	2.1 / 2 /3 Find missing angle measures in a diagram of parallel lines cut by a transversal including triangles; Using angle properties prove that lines are parallel or not.			
18 **(C)**	2.1 /2 /3 Derive basic proofs involving angles in triangles and parallel lines as well as identify errors in a given proof			
19 **(C)**	2.4 Find and prove missing angle measures in polygons			
20 **(C)**	2.1-2.4Solve situational problems that involve angles, parallel and nonparallel lines with transversals and angles in triangles and polygons			
21 **(C)**	(Extra handouts) Derive proofs involving congruent triangles			
Topic 5- Sine Law and Cosine Law (Chapter 3 and 4) Outcome FM20.5				
22 **(C)**	Ch.3 and 4.1 /2 I can solve for a missing side or angle using law of sine or cosine (excluding ambiguous case)			
23 **(C)**	Ch. 3 and 4 I can solve situational questions involving non right triangles			
24 **(C)**	4.3 / 4 I can illustrate and explain the possibilities for a given set of measurements for the ambiguous case.			
Comprehensive Test #2 Estimated Date (Beginning of May before May long Weekend)				
Topic 6 – Statistical Reasoning (Normal Distribution & Confidence Intervals) Chapter 5 Outcome FM 20.6 and 7				
25 **(C)**	5.1 Determine the mean, median, mode and range.			
26 **(C)**	5.3 Determine the standard deviation			
27 **(C)**	5.4 /5 Determine area under the curve, sketch a normal distribution and analyze data to determine if it approximates normal distribution. I can compare normally distributed data sets and explain what it tells me. I can determine z-scores to fit a situation			
28 **(C)**	5.3-5.5 Solving situational problems involving normal distributions, standard deviations & z scores			
29 **(C)**	5.6 I am able to identify the confidence level, confidence interval and margin of error and range of data in a poll/survey. I can explain how the size of the random sample used impacts the data. Using confidence intervals I can make inferences and decisions about a population from sample data. I am able to critique real life examples in which statistical data is used to support a particular position. I can support a position by analyzing statistical data, as well as consider other factors.			
Topic 6 - Stats Test				
Topic 7 – Proportional Reasoning (Chapter 8) Outcome FM 20.3				
These concepts will be assessed in a cumulative project	8.1 Determine and compare unit rates from written information, graphs and tables.			
	8.2 Solve rate problems, relate slope of a graph to rate & explain the effect of factors that influence rate.			
	Determine scale factor unknown dimensions of 2D and 3D objects and draw a scale diagram of a 2D shape.			
	Situational problems involving scale diagrams of 2D shapes and 3D objects			
	Given one of the following (scale factor, ratio of area, ratio of volume), find the remaining ratios and apply to solve for a value.			
	Solve situational questions involving 2D and 3D object and explain the effect of a change in scale factor on the area of a 2D shape or the surface area or volume of a 3D object			