

MASTERY OF LEARNING: CONCEPTS

<u>Concept</u>	<u>Mastery Level</u>		
<u>Quiz Scores</u>			
10 - 9	HIGH ACHIEVING	4	<i>Student demonstrates mastery/understanding of the concept and is able to apply it at a high level.</i>
8.5 - 7	PROFICIENT	3	<i>Student demonstrates mastery/understanding of the concept & can apply it in nearly all cases given.</i>
6.5 - 5	PROGRESSING	2	<i>Student demonstrates some mastery/understanding of the concept however is unable to always apply it.</i>
4.5-2.5	BEGINNING	1	<i>Student demonstrates little mastery/understanding of the concept & has great difficulty in applying it.</i>
2 - 0	INCOMPLETE	0	<i>Student shows no evidence of mastery/understanding the concept.</i>

#	<u>Concept (description)</u>	<u>Date Taken</u>	<u>Mastery Level</u>	<u>Graph</u>			
				1	2	3	4
1	Simplify and evaluate numeric/algebraic expressions						
2	Solve linear and quadratic algebraic equations for a variable						
3	Simplify expressions and solve equations with radical notation						
4	Solve quadratic equations using the quadratic formula						
5	Solve systems of equations						
6	Identify points and other parts of the coordinate plane						
7	Describe, define, and draw basic geometric principles						
8	Graph, solve, and write the equations of lines on the coordinate plane using slope-intercept form						
9	Name and measure segments						
10	Determine properties of segments computing segment length algebraically and by applying distance						
11	Name and measure angles						
12	Determine properties of angles and compute angle measures						
13	Use inductive reasoning to find patterns						
14	Use deductive reasoning to check validity of conditionals and form counterexamples						
15	Identify algebraic properties						
16	Complete an algebraic proof						
17	Identify geometric properties						
18	Complete a geometric proof						
19	Identify, use, and prove properties involving midpoints, angle bisectors, and the coordinate plane						
20	Identify, measure, and prove angle relationships						
21	Use and prove ideas with perpendicular lines						
22	Identify special angles around lines and special lines						
23	Use properties of parallel lines to complete diagrams						
24	Prove lines as parallel						
25	Write linear equations that are parallel or perpendicular to other lines						

#	<u>Concept (description)</u>	<u>Date Taken</u>	<u>Mastery</u>	<u>Graph</u>
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#	Concept Description	Exit Level	Level	1	2	3	4
26	Classify triangles by their sides and by their angles						
27	Determine angle measures with triangles						
28	Match and solve parts of congruent triangles						
29	Prove triangles congruent						
30	Write proofs to solve congruent triangles & their parts						
31	Use special triangle theory with isosceles and equilateral triangles						
32	Draw & find special properties of segments in triangles (altitudes, medians, & perpendicular bisectors)						
33	Use numerical and triangle inequalities to determine the longest and shortest sides/angles						
34	Name & find angle measures in and around polygons						
35	Use properties of parallelograms						
36	Solve sides and angles in special parallelograms (rectangles, squares, and rhombuses)						
37	Find angles and sides in trapezoids						
38	Write, simplify, and use ratios to solve						
39	Write, simplify, and use proportions to solve						
40	Use the concept of similarity to find angles and sides in polygons and in other applications						
41	Prove similarity of triangles						
42	Identify and solve special proportions of various geometric figures						
43	Set up and correctly use the Pythagorean Theorem						
44	Identify sides in special right triangles						
45	Write trigonometric ratios and use a calculator and/or table to determine measures						
46	Solve right triangles & other figures with trigonometry						
47	Problem-solve with right triangle applications						
48	Identify, describe, and draw circle parts						
49	Write the equation of a circle using the coordinate plane						
50	Identify and create tangent lines and tangent circles						
51	Identify, measure, and find relationships between central angles and their arcs						
52	Identify, measure, and find relationships between arcs and their intersecting chords						
53	Determine arc and inscribed angle measures						
54	Find angles and arcs created by two chords, two secant lines, or a combination of with a tangent line						
55	Find segment lengths in circles using chord, tangent, and secant properties						
56	Find perimeter and area of polygons						
57	Find circumference and area of circles and sectors						
58	Create nets and count elements of solids						
59	Determine surface area and volume of a solid						
60	Identify and use various transformations						