

GRADE 9/10 INDIVIDUAL TEACHER CONTENT / CONFIDENCE SURVEY :
MATHEMATICS

DIRECTIONS: Every teacher in the school should answer **Self Assessment Question A and B** by indicating **1, 2, 3, or 4** under columns **A and B** for each indicator on the tables below.

Note: All teachers (classroom, special education, Title I, art, p.e., etc.) are asked to complete this survey for the school because improving achievement on the state assessments is the responsibility of all teachers in the building, not just the teacher at the grade level that the assessment is given.

<p>Self-Assessment A: Content Expertise</p> <p>What is your level of content expertise or knowledge for each of the assessed indicators?</p> <p>1. Surface Understanding 4. Deep Understanding</p>
<p>Self-Assessment B: Confidence Teaching Assessed Indicators</p> <p>How confident are you with your ability to deliver instruction that firmly and richly fits (aligns) with each of the assessed indicators?</p> <p>1. Not Confident 4. Highly Confident</p>

Knowledge Base Indicators: <i>Statements of mathematical facts, concepts, and/or procedures, which a student should know and/or be able to do.</i>	A				B			
	1	2	3	4	1	2	3	4
1.2.K3a-e names, uses, and describes these properties with the real number system and demonstrates their meaning including the use of concrete objects: a) commutative ($a + b = b + a$ and $ab = ba$), associative [$a + (b + c) = (a + b) + c$ and $a(bc) = (ab)c$], distributive [$a(b + c) = ab + ac$], and substitution properties (if $a = 2$, then $3a = 3 \times 2 = 6$); b) identity properties for addition and multiplication and inverse properties of addition and multiplication (additive identity: $a + 0 = a$, multiplicative identity: $a \cdot 1 = a$, additive inverse: $+5 + -5 = 0$, multiplicative inverse: $8 \times 1/8 = 1$); c) symmetric property of equality (if $a = b$, then $b = a$); d) addition and multiplication properties of equality (if $a = b$, then $a + c = b + c$ and if $a = b$, then $ac = bc$) and inequalities (if $a > b$, then $a + c > b + c$ and if $a > b$, and $c > 0$ then $ac > bc$); e) zero product property if ($ab + 0$, then $a = 0$ and/or $b = 0$)								
2.2.K3c solves: c) systems of linear equations with two unknowns using integer coefficients and constants								
2.3.K6 recognizes how changes in the constant and/or slope within a linear function changes the appearance of a graph								
3.4.K4 finds and explains the relationship between the slopes of parallel and perpendicular lines								
3.4.K6 recognizes the equation of a line and transforms the equation into slope-intercept form in order to identify the slope and y-intercept and uses this information to graph the line.								
4.1.K3 explains the relationship between probability and odds and computes one given the other								
4.2.K4 explains the effects of outliers on the measures of central tendency (mean, median, mode) and range and interquartile range of a real number data set								
4.2.K5 approximates a line of best fit given a scatter plot and makes predictions using the equation of that line								

