Algebra Essentials – HSMTH 20
Student Learning Outcomes Report

Due to Instructional Division Secretary when grades are also due.

Please complete all shaded areas.

Course Number (4 Digits)	2977
Instructor	Wezniak
Term/Year	Term 1 / SY 12/13

<u>SLO 1</u>: Recognize, read and apply algebraic vocabulary and symbols.

<u>SLO 2</u>: Apply algebraic operations and properties to real numbers, monomials, and polynomials.

<u>SLO 3</u>: Model real world situations with appropriate mathematical notation and interpret solutions.

Assessment 1: In a quadrilateral two angles are equal. The third angle is equal to the sum of the two equal angles. The fourth angle is 60° less than twice the sum of the other three angles. Find the measures of the angles in the quadrilateral.

Week of Assessment #1: 4		
Method of Assessment #1 (i.e. test, report, etc.): Test		
Score	**#'s of Students**	**Explanation**
5	2	**Exemplary Response**. Gives a complete response with a clear, coherent, unambiguous and elegant explanation; includes a clear and simplified diagram; communicates effectively to the identified audience; shows understanding of the open-ended problem's mathematical ideas and processes; identifies all the important elements of the problem; may include examples and counterexamples; presents strong supporting arguments.
4	3	**Competent Response**. Gives a fairly complete response with reasonably clear explanations; may include an appropriate diagram; communicates effectively to the identified audience; shows understanding of the problem's mathematical ideas and processes; identifies the most important elements of the problem; presents solid supporting arguments.
3	4	**Minor Flaws But Satisfactory.** Completes the problem satisfactorily, but the explanation may be muddled; argumentation may be incomplete; diagram may be inappropriate or unclear; understands the underlying mathematical ideas; uses mathematical ideas effectively.
2	4	**Serious Flaws But Nearly Satisfactory.** Begins the problem appropriately but may fail to complete or may omit significant parts of the problem; may fail to show full understanding of mathematical ideas and processes; may make major computational errors; may misuse or fail to use mathematical terms; response may reflect an inappropriate strategy for solving the problem.
1	2	**Begins, But Fails to Complete Problem.** Explanation is not understandable; diagram may be unclear; shows no understanding of the problem situation; may make major computational errors.
0	2	**Unable to Begin Effectively.** Words do not reflect the problem; drawings misrepresent the problem situation; copies parts of the problem but without attempting a solution; fails to indicate which information is appropriate to the problem.
	17	**TOTAL NUMBER OF STUDENTS TESTED**

Have 70% of the students earned a passing score? _____ YES x**_____ NO** **Comments:**
Faculty observations and/or recommendations regarding student learning outcomes and assessments: All math SLO's and assessment vehicles will be reviewed for appropriateness between terms 1 and 2.

Assessment 2: **Find the dimensions of a rectangle whose area is** $x^2 - 4x - 165$.

Week of Assessment #2: 8		
Method of Assessment #2 (i.e. test, report, etc.): Test		
Score	**#'s of Students**	**Explanation**
5	2	**Exemplary Response**. Gives a complete response with a clear, coherent, unambiguous and elegant explanation; includes a clear and simplified diagram; communicates effectively to the identified audience; shows understanding of the open-ended problem's mathematical ideas and processes; identifies all the important elements of the problem; may include examples and counterexamples; presents strong supporting arguments.
4	4	**Competent Response**. Gives a fairly complete response with reasonably clear explanations; may include an appropriate diagram; communicates effectively to the identified audience; shows understanding of the problem's mathematical ideas and processes; identifies the most important elements of the problem; presents solid supporting arguments.
3	2	**Minor Flaws But Satisfactory.** Completes the problem satisfactorily, but the explanation may be muddled; argumentation may be incomplete; diagram may be inappropriate or unclear; understands the underlying mathematical ideas; uses mathematical ideas effectively.
2	1	**Serious Flaws But Nearly Satisfactory.** Begins the problem appropriately but may fail to complete or may omit significant parts of the problem; may fail to show full understanding of mathematical ideas and processes; may make major computational errors; may misuse or fail to use mathematical terms; response may reflect an inappropriate strategy for solving the problem.
1		**Begins, But Fails to Complete Problem.** Explanation is not understandable; diagram may be unclear; shows no understanding of the problem situation; may make major computational errors.
0		**Unable to Begin Effectively.** Words do not reflect the problem; drawings misrepresent the problem situation; copies parts of the problem but without attempting a solution; fails to indicate which information is appropriate to the problem.
	9	**TOTAL NUMBER OF STUDENTS TESTED**

Have 70% of the students earned a passing score? x_____ **YES** _____ **NO** **Comments:**
Faculty observations and/or recommendations regarding student learning outcomes and assessments: Too ambiguous of a question and late in term

Assessment 3: The high school soccer team had a Saturday car wash. They charged $3.50 for large cars and $3.00 for small cars. They had a successful day, washed a total of 124 cars, and made $403.50.

How many large cars and how many small cars did they wash?

Week of Assessment #3: 6		
Method of Assessment #3 (i.e. test, report, etc.): Test		
Score	**#'s of Students**	**Explanation**
5	2	**Exemplary Response**. Gives a complete response with a clear, coherent, unambiguous and elegant explanation; includes a clear and simplified diagram; communicates effectively to the identified audience; shows understanding of the open-ended problem's mathematical ideas and processes; identifies all the important elements of the problem; may include examples and counterexamples; presents strong supporting arguments.
4	3	**Competent Response**. Gives a fairly complete response with reasonably clear explanations; may include an appropriate diagram; communicates effectively to the identified audience; shows understanding of the problem's mathematical ideas and processes; identifies the most important elements of the problem; presents solid supporting arguments.
3	2	**Minor Flaws But Satisfactory.** Completes the problem satisfactorily, but the explanation may be muddled; argumentation may be incomplete; diagram may be inappropriate or unclear; understands the underlying mathematical ideas; uses mathematical ideas effectively.
2	1	**Serious Flaws But Nearly Satisfactory.** Begins the problem appropriately but may fail to complete or may omit significant parts of the problem; may fail to show full understanding of mathematical ideas and processes; may make major computational errors; may misuse or fail to use mathematical terms; response may reflect an inappropriate strategy for solving the problem.
1	1	**Begins, But Fails to Complete Problem.** Explanation is not understandable; diagram may be unclear; shows no understanding of the problem situation; may make major computational errors.
0		**Unable to Begin Effectively.** Words do not reflect the problem; drawings misrepresent the problem situation; copies parts of the problem but without attempting a solution; fails to indicate which information is appropriate to the problem.
	9	**TOTAL NUMBER OF STUDENTS TESTED**

Have 70% of the students earned a passing score? x **YES** _____ **NO** **Comments:**
Faculty observations and/or recommendations regarding student learning outcomes and assessments: