

Authentic Assessment Peer Observation Form

Instructor Name: Snyther Biza	Date: October 29, 2012
Observer Name: Rafael Pulmano	Course No. & Title: MS 099 - Intermediate Algebra
Student Learning Outcome being assessed: SLO2.4: Solve system of equations by substitution and elimination methods. SLO2.5: Solve system of equations with more than two variables.	
Description of Assessment Strategy (what the students will do): Students will be doing some authentic assessment exercises in groups.	

Comments/General Observations:

Observation was conducted from 2:00 PM to 2:45 PM in room B-201. Instructor divided the class into groups of three students and gave them 3-page handouts containing problems that involved equations with more than two variables. A portion of the handout listed the steps that students were to follow in solving the equations. Instructor reviewed these steps, and used the first problem from the handout as illustrative example. After that, he instructed the groups to solve the fourth problem in the handout which dealt with similar problem situation. Observer asked if he could take video footage of the group activity. Instructor agreed. Images included in this report were taken from said video.

Feedback for instructor (Look at the box below with descriptions of authentic assessment. Place a check mark next to each one that was observed. 5 descriptors checked = excellent; 4 descriptors checked = very good; 3 descriptors checked = satisfactory; 2 descriptors checked = needs improvement; 1 descriptor checked = not acceptable. The observer and instructor should work together to make improvements on the assessment strategy where the descriptors were not checked.)

Descriptions	↓	Comments
Assessment required student to create solutions to a problem(s) that is like one they would have to solve in the real world.	✓	In the real world, students will encounter many situations that call for group or team work. In a group work, each member is expected to contribute something that will lead to the resolution of a given problem. The group activity and the problem cases assigned by the instructor provided excellent simulation of actual situations that these students will most likely encounter in the future. Students can draw upon these experiences and use solutions developed in the classroom setting in other similar or related situations elsewhere.

<p>Assessment required student to analyze, synthesize and apply what they have learned.</p>	<p>✓</p>	<p>The assessment involved having each group determine the prices of each individual items in a ‘basket’ of goods that were purchased in varying quantities and aggregate amounts. The students had to analyze the problem, use letters to represent different items in order to formulate equations, apply their knowledge of algebra and resort to the process of substitution and elimination, until the individual prices were determined. This type of problem solving has wide application in business as well as in day-to-day personal activities involving financial considerations.</p>
<p>Assessment was direct evidence of learning. (Instructor didn’t have to assume or guess that student would be able to apply knowledge in a real life situation.)</p>	<p>✓</p>	<p>Groups were given ample time to solve the problem. Students having difficulty or were stuck at some point called the attention of the Instructor and asked for help. At the end of the allotted period, one student from the group which completed the task early was asked to write the solution on the board. The step-by-step process followed by the student that unfolded in front of everyone as she wrote on the board was direct evidence of learning that had taken place. For each instance that the student missed or forgot to write a number, symbol, or even a line on the board, her classmates immediately reacted and called her attention to the error, indicating that they, too, knew the answer. This is another direct evidence of learning on the part of classmates who remained on their seats.</p>
<p>Assessment allowed student multiple acceptable routes to presenting evidence of learning</p>	<p>✓</p>	<p>a) Illustrative solution used the letter x, y, and z to represent three different items for purposes of developing systems of equation. Students had choices of using any letter in the alphabet to represent different items. b) In solving the problem assigned to the groups, each team tried different approaches. One group was observed having one student taking the lead in solving the problems while other members watch; in another group, each member solved the problem individually and they later compared solutions.</p>
<p>Assessment required that the student perform a task.</p>	<p>✓</p>	<p>Students were required to perform the several tasks, and follow a logical sequence: (a) <i>Define</i> the variables to be found using the ‘let’ statements; (b) <i>Create</i> equations that express the information give in the problem scenario; (c) <i>Solve</i> the system <i>using</i> the algebraic method, substitution or elimination; (d) <i>Consider</i> if the answer is reasonable; (e) <i>Label</i> solution appropriately; and, (f) <i>Check</i> answer with the conditions given in the problem.</p>

EXHIBIT – PHOTOS (FROM VIDEO TAKEN BY OBSERVER)



APPENDIX

A. Copy of handout distributed by Instructor

Prepared by:

Discussed with, and noted by:

Rafael Pulmano
Observer

Snyther Biza
Instructor

Name: _____

Date: _____

SLO 2.4: Solve system of equations by substitution and elimination methods**SLO 2.5: Solve system of equations with more than two variables.****Remember when solving any application problem, the following steps are helpful:**

1. Define the variables that you want to find using the *let* statements.
2. Create equations that express the information given in the problem's scenario.
3. Solve your system using algebraic method(s) – substitution or elimination.
4. Consider if your answer is reasonable.
5. Label your solution appropriately.
6. Check your answer with the conditions given in the problem.

EXERCISES:

1. One day at a college bookstore, Sean purchased two pens, two erasers, and a pack of paper for \$6. Accompanying Sean were Jim and Mary. Jim also purchased four pens, three erasers, and two packs of paper for \$11.50. And Mary purchased three pens, one eraser and three packs of paper and it costs her \$9.50. How much does a pen, an eraser and a pack of paper cost?
 - a) Write a system of equations that describes the situation. Define your variables carefully using *let* statements.
 - b) Find the cost of a pen, an eraser and a pack of paper by solving the system of equations using Elimination method.
2. One evening, Mike went to a coast-way to jog. All of the people at the coast-way were either jogging or bike riding. There were 15 more joggers than bike riders. If there were a total of 45 people at the coast-way, how many were jogging and how many were riding their bikes?
 - a) Write a system of equations that describes the situation. Define your variables carefully using *let* statements.
 - b) Find the number of people jogging and the number of people riding their bikes by solving the system of equations using Substitution method.

5. Cindy has a collection of 52 dolls that all have either blue-eyes or green-eyes. If Cindy has 16 more blue-eyed dolls than green-eyed dolls, how many number of each type of doll does Cindy have?
- How many unknowns are there to find?
 - Write a system of equations that describes the situation. Define your variables carefully using *let* statements.
 - Find the number of each type of doll that Cindy has by solving the system of equations using Substitution method.
6. A construction company is building a house. The sum of the length, width, and height of the house is to be 75 feet. The sum of the length, three times the width, and twice the height is 150 feet. The sum of twice the length, the width, and the height is 95 feet. What are the dimensions of the house?
- How many unknowns are there to find?
 - Write a system of equations that describes the situation. Define your variables carefully using *let* statements.
 - Find the dimensions of the house by solving the system of equations using Elimination method.