Guided Notes - 4.6 Using Augmented Matrices to Solve Systems Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Example 1 Solve this system of equations using matrices: 

Step 1: Enter the augmented matrix.



Step 2: Solve the system using “rref” (reduced row echelon form).

Step 3: Interpret your findings:

You Try: Solve the systems below:

1.  2.  3. 

Ans: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ans: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ans: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Interpretation: Interpretation: Interpretation:

The Laredo Sports Shop sold 10 balls, 3 bats, and 2 bases for $99 on Monday. On Tuesday they sold 4 balls, 8 bats, and 2 bases for $78. On Wednesday they sold 2 balls, 3 bats, and 1 base for $33.60. What are the prices of 1 ball, 1 bat, and 1 base?

First define the variables.

Translate the information in the problem into three equations.

Set up your augmented matrix and interpret the results in context.

You try:

At the arcade, Ryan, Sara and Tim played video racing games, pinball, and air hockey. Ryan spent $6 for 6 racing games, 2 pinball games, and 1 game of air hockey. Sara spent $12 for 3 racing games, 4 pinball games, and 5 games of air hockey. Tim spent $12.25 for 2 racing games, 7 pinball games, and 4 games of air hockey. How much did each of the games cost?

**Use the process outlined above.**